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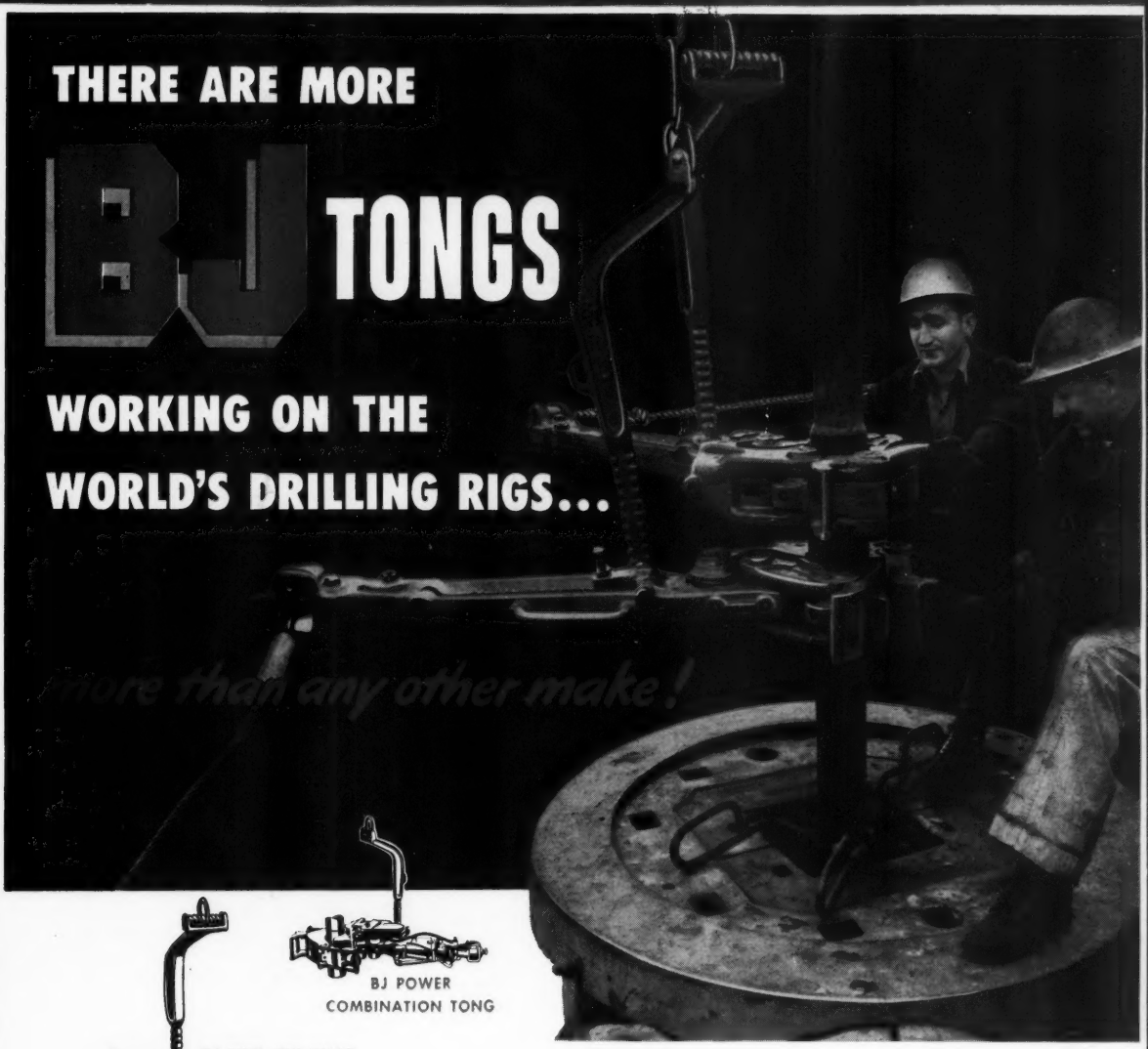

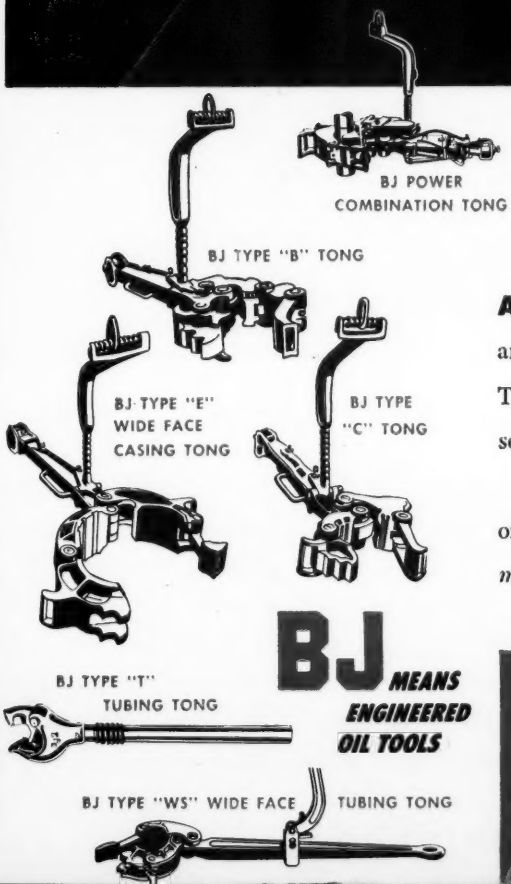

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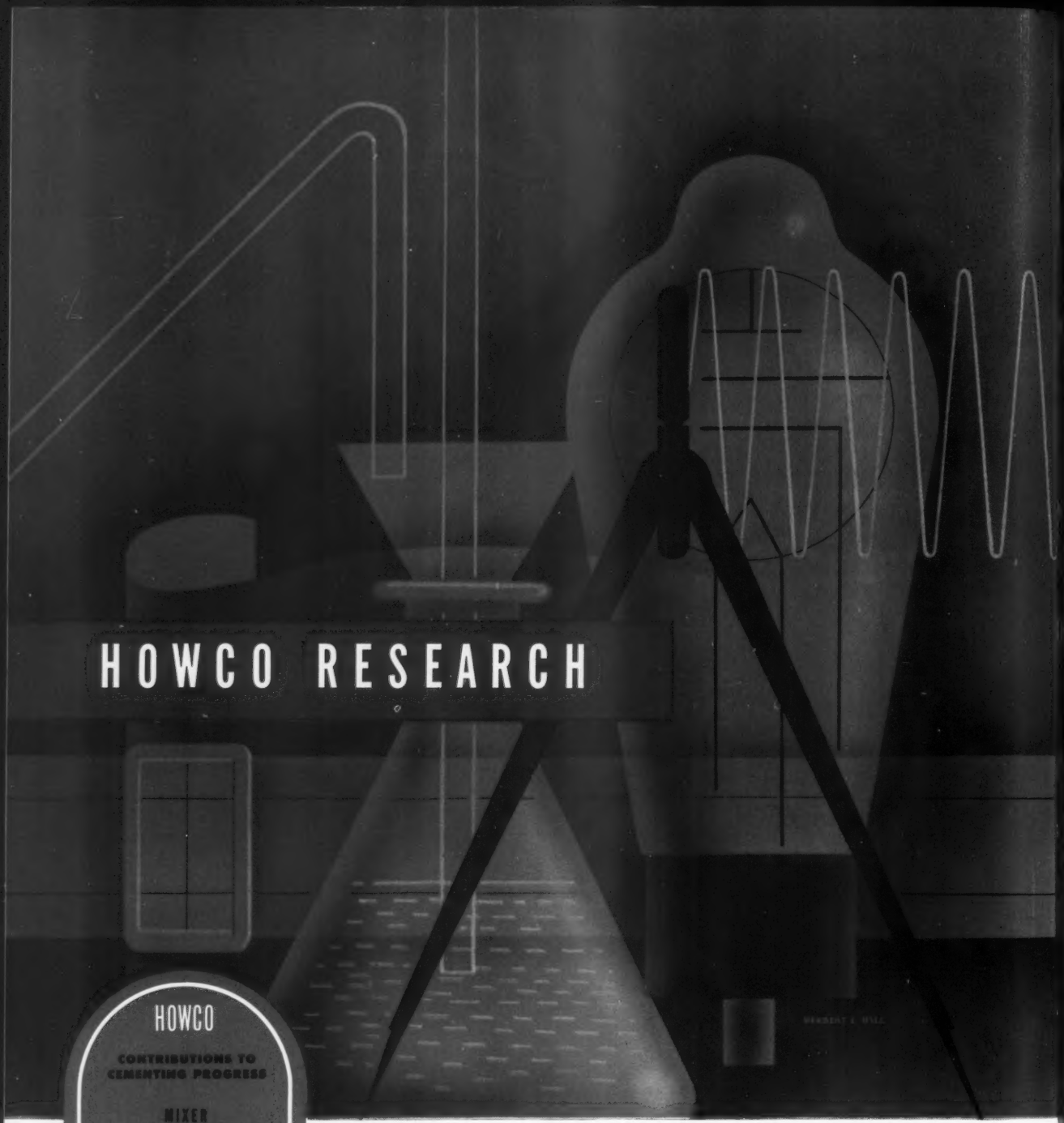

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CALIFORNIA
OIL WORLD

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Washington Highlights

W. H. Geis, consulting oil engineer of Los Angeles, appeared on behalf of the Pacific Coast Petroleum industry before the House Ways and Means Committee during hearings on the Treasury Department's proposal to cut the depletion allowance from 27½ to 15 per cent. Pointing to his 35 years in business as a petroleum consultant, Geis said he believed himself qualified to advise the committee that the oil industry in California cannot find new oil with the reduced allowance recommended by the Secretary of the Treasury. Among other witnesses who appeared before the committee in opposition to the proposal was W. R. Wayland, chairman of the board of the Valley National Bank, Phoenix. A representative of Greater Arizona, Inc., he told the committee that if his state is to become oil producing, nothing should be done by Congress to discourage the exploration for oil, a condition bound to result if the depletion allowance were reduced. Other witnesses included Russell Brown, Independent Petroleum Association of America; General Ernest Thompson, Texas Railroad Commission; Glenn Nielson, Rocky Mountain Oil & Gas Association; and Wesley E. Disney, representing the Independent Natural Gas Association.

As a means of saving steel, Interior Secretary Chapman has recommended that new wells in closely drilled fields be spaced further apart. The Secretary also called upon state regulatory bodies to study rules governing the spacing of wells in the interest of ultimate revision to allow drilling new wells farther apart and pulling more from each well, wherever practical. Chapman also urged increased use of pressure maintenance and re-pressuring operations of oil and gas fields through development of reservoirs as single units, and greater use of dual completions.

Independent Petroleum Association of America was represented at a hearing on extension of the Trade Agreements Act before the Senate Finance Committee. The association urged retention of "escape clause" and "peril point" amendments as written into the bill by the House and also recommended that the act be extended for one year, instead of three as requested by the Administration.

President Truman received a surprise defeat when the House voted 227 to 167 against granting him emergency authority to set up new defense agencies. The Senate already has approved such powers for the Chief Executive and the House had been expected to follow with action similar.

Senator Virgil Chapman, Democrat of Kentucky, died at Betheda Naval Hospital after his automobile collided with a trailer-truck in a fashionable section of Washington. Chapman, 55, was 25 years in Congress.

The Defense Department announces the fuel oil situation is changing somewhat under the accelerated defense program. Therefore, the Department said "petroleum products will be in great demand. There is a shortage in both tank cars and tankers. For this reason the use of heating oil and fuel oil should be kept to the practicable minimum."

Interior Secretary Chapman has requested private enterprise to set up promptly a synthetic liquid fuels industry based on oil shale and coal. Such a move would have Government aid under legislation now existing, he said. He explained that his Department also would foster the building of one or two plants to produce synthetic liquid fuels by direct hydrogenation of coal.

J. Ward Keener, vice president of the B. F. Goodrich Company and a member of the President's Wage and Stabilization Board, has reckoned that by June the country's synthetic rubber plants should be turning out 900,000 tons a year. Such an amount of production would forestall any shortage of tires or other articles of rubber. Military and civilian use should consume about 1,200,000 tons of rubber during 1951. Of this amount, the rubber executive estimated crude rubber will make up one-third, synthetic two-thirds.

The Petroleum Administration for Defense and the Producers of Oil and Gas

An address by Bruce K. Brown before the San Joaquin Valley Oil Producers Association.

I was happy to be able to leave Washington to address the producers of crude oil in the second largest of all of the oil producing States. In planning my remarks for this occasion I decided to center them on just two topics. First, I will discuss the wide scope of the industry operations which P.A.D. must plan to administer from the standpoint of the defense program. Second, and finally, I will talk a little about that topic which I know is foremost in the minds of the industry itself — that is, STEEL. But first, a little about the industry itself.

Too many persons think of the petroleum industry as consisting largely of the integrated activities of 15 or 20 large companies. Actually, there is an enormous number of separate business enterprises which must be taken into consideration.

There are scores of companies that are engaged solely in some form of petroleum transportation. Several of them own petroleum tank cars and their sole business is renting them to others. Other companies make a business of operating barges or tankers, automobile truck fleets or pipe lines. Several companies specialize only in storing petroleum products for others. There are 20 or 30 aggressive enterprises, highly technical in character, which do nothing more nor less than hunt for oil for other people—I refer to the companies specializing in geophysical exploration for oil and gas.

Scores of companies specialize in extracting gasoline from natural gas or producing gasoline by so-called recycling methods from the gas fields. There are scores more that specialize in wholesaling and retailing liquefied petroleum gases variously known as "propane," "butane," "L.P.G." or "bottled gas." Also, there are scores of companies whose only activities are manufacturing special equipment and chemicals used solely by the petroleum industry.

There are several hundred petroleum refining companies and several hundred "jobbers"—that is, wholesale distributors of petroleum products such as gasoline, lubricants, kerosene and heating oil.

There are literally thousands of companies that do nothing but produce oil and gas for sale to others, and there are hundreds of separate well-drilling companies which "hire out" to the producers. Finally, there are literally hundreds of thousands of independent businessmen who are operating service stations in the retail market.

Thus far I have spoken only of the domestic oil industry. However, the oil produced outside the United States represents nearly half of all the oil produced in the world today. P.A.D. has many defense responsibilities in connection with the operations of United States petroleum companies abroad, and of friendly foreign companies and governments. Domestic oil cannot be considered separately from foreign oil. For example, about one million barrels a day of petroleum crude oil and products of foreign origin are now welded into our domestic economy.

P.A.D. has defense responsibilities also for the production, transmission and distribution of gas, both natural gas and manufactured gas. The production of natural gas goes hand in hand with the production of crude oil. Practically all oil wells produce natural gas in some quanity—in fact, many so-called oil wells produce more gas than oil. There are some so-called "dry gas fields," but for the most part the production of gas and oil are inextricably interwoven. The so-called average "wildcatter" has only a "one-in-nine-chance" of finding something valuable at the bottom of the hole he drills — and even then he cannot predict whether the lucky strike will be oil or gas.

The business of transmitting and

"No Gas Rationing in Sight" says Deputy Petroleum Administrator BRUCE K. BROWN (left, sitting) as he spoke to over 500 members of the San Joaquin Valley Oil Producers Association at Bakersfield early this month. In the center is President E. E. Pyles with RICHARD G. LAWSON (right), production director of the petroleum administration for defense, who told oilmen that they would get all the tubular steel they would need this year. Standing: Assemblyman R. W. (Pat) Kelley from Kern; Senator Howard Williams, Tulare; Lt. Governor J. Goodwin Knight; Secretary C. O. Premo, and Senator Jess R. Dorsey (Kern County). The occasion was the 17th Annual meeting of the valley association.

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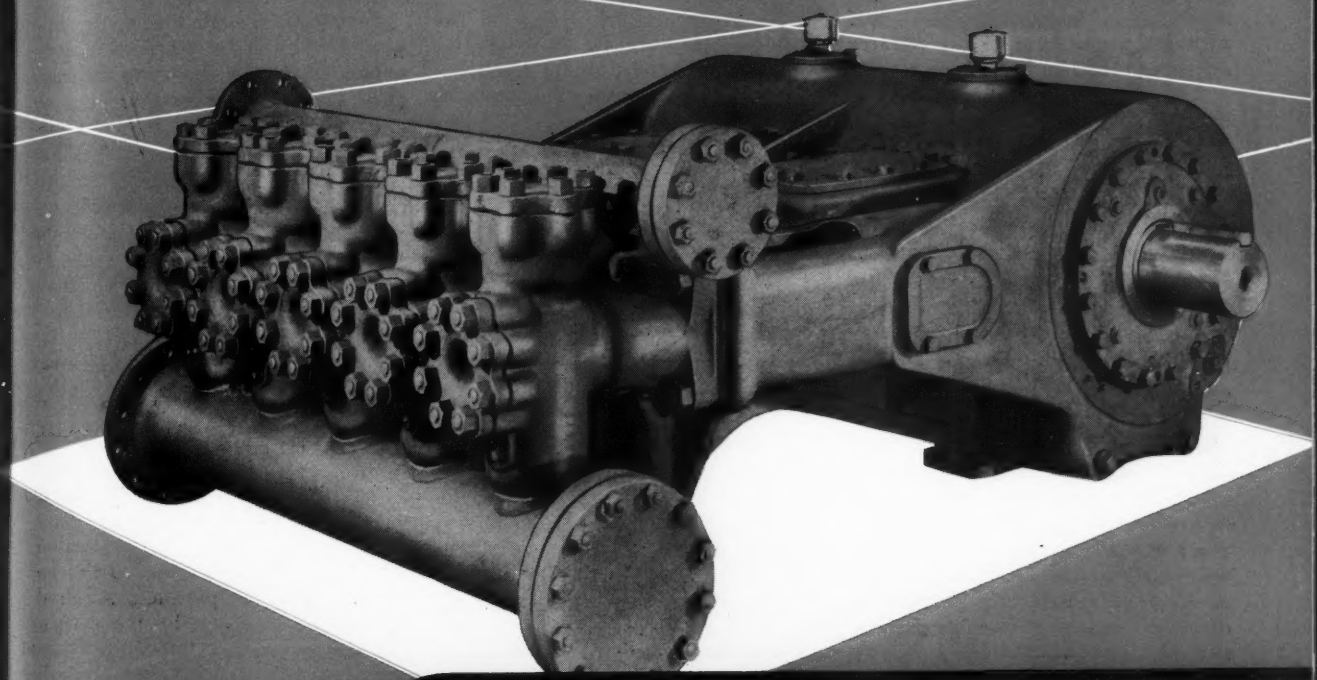

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distributing natural gas has grown enormously since the close of World War II and natural gas is being substituted more and more for the manufactured product. Measured in British thermal units, which are a common denominator for the heating value of oil, gas and coal, the gas industry has now risen to a size where it represents almost half as much useful heat to the country as does liquid petroleum itself. P.A.D. has defense mobilization responsibilities for the scores of gas pipe lines and the hundreds of distribution operations of the gas industry throughout the United States, as well as for the gas manufacturing operations conducted by the utility companies.

Because of the size and complexity of the domestic oil industry, the foreign oil industry, and the gas industry, the Petroleum Administration for Defense is organizing itself along the several lines or patterns that are followed by the enterprises which it must administer from the defense standpoint. For example, since so many thousands of oil businesses specialize solely in the production of crude oil for sale to others, it is logical enough that we should have in P.A.D. a special "Production Division" to care for production problems, whether they be the problems of an independent producing company or the problems of the production department of an integrated oil company. And so with all of the other functions of the industry and of P.A.D. Our Supply and Transportation Division must be prepared to deal not only with national supply and transportation problems, but also with the problems peculiar to an enterprise that is interested only in transportation of oil; for example, a common carrier pipe line company.

Just as some oil companies specialize in producing or refining foreign oil, so in P.A.D. we find it necessary and desirable to establish separate divisions to deal with foreign oil problems. The same principle applies in the case of the gas industry. We are currently establishing a separate set of divisions to handle the materials problems and the programming problems involved in the transmission and distribution of gas.

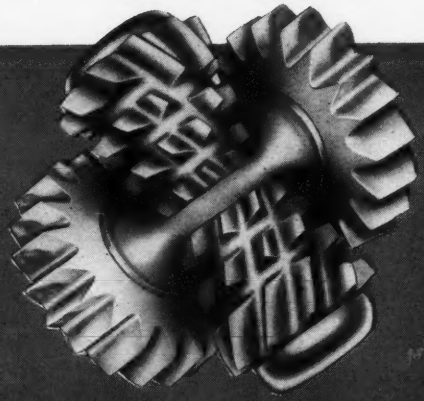
It is the devout purpose of the Petroleum Administration for Defense to secure that degree of mobilization required of the oil and gas industries for the purposes of the present mobilization program with as little regimentation as is humanly possible. We intend to issue as few orders and directives as we can possibly do with, because we believe that the industry has the strength, ingenuity, patriotism and enlightened self-interest necessary to fully discharge its functions under the defense program, if it is given reasonable freedom of action and enough materials and man power to do the job.

Feeling as we do, one of our first objectives was to organize a competent Materials Division to marshall the materials needs of the oil and gas industry and to make vigorous representations to the National Production Authority so that the oil and gas industry might obtain the materials it needs to do the job. P.A.D.'s authority over the allocation of materials is subordinate to that of N.P.A. P.A.D.'s job is to properly claim from N.P.A. the minimum amounts of materials that are required and then to see that they are distributed fairly.

To mobilize petroleum and gas for national security, we need a sound program. By "program" I mean an over-all plan, based on sound data, for the production, transportation, refining and distribution of the petroleum and gas products required by the military and by the civilian populations of the United States and our allies. Projects that fall properly within such a program need our support. Projects which cannot properly fall within the program should not be permitted to use up valuable construction materials in times such as these.

The development of a program requires much data and precise judgment. Of course, the program itself must change from day to day but it must always provide for all of the eventualities of a full mobilization of the allied world and a possible world conflict. For this reason, we organized a Program Division at the same time we organized a Materials Division. The job of the Materials Division is of course to get materials, and the job of the Program Division is to provide a series of yardsticks against which all types of projects and plans can be measured. Naturally, our Program Division must work very closely with the military authorities in order that we may take into account properly the estimated military requirements for petroleum products and gas.

There was cause for optimism thus expressed by R. D. BUSH, director, California State Division of Oil and Gas; AL DEWIRE, local Head of the Conservation Committee, Oil Producers' Agency; and R. W. WALLING, deputy director of the State Division of Oil and Gas in Kern County. All were guests at the annual meeting of the San Joaquin Valley Oil Producers Association, where they heard PADwigs call for cooperation in exchange for all the tubular steel necessary for 1951.



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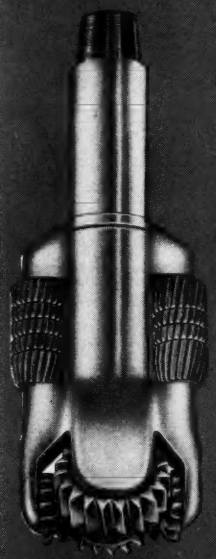
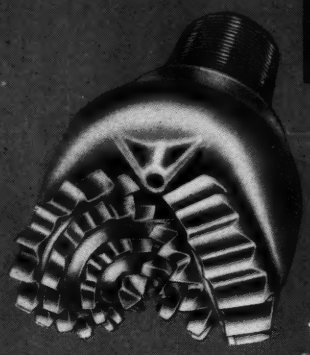
H.C. SMITH ROCK BITS



4-POINT



TYPE Y
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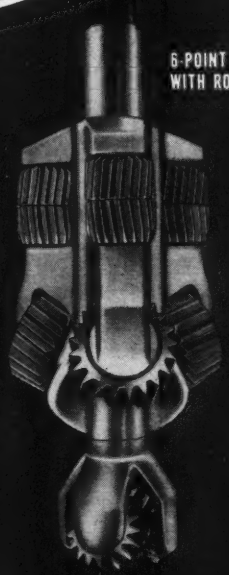
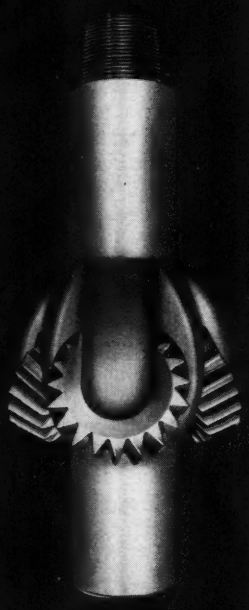
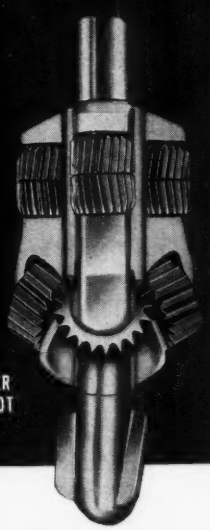
H.C. SMITH HOLE OPENERS

6-POINT HOLE OPENER
WITH ROCK BIT PILOT





3-POINT
HOLE OPENER



6-POINT HOLE OPENER
WITH BULL NOSE PILOT

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From what I have said it will be obvious that our Materials Division and our Program Division are intended to serve both domestic and foreign oil and also to serve the gas industry.

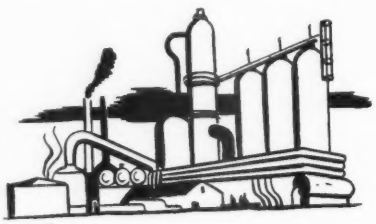
Turning now to the domestic oil industry, we are following an organizational pattern which involves an Assistant Deputy Administrator to assist me in the handling of domestic operations, and to serve as chairman of an operating committee which comprises the directors of P.A.D. divisions having to do with domestic operations. Thus far we have organized a Production Division which will handle the defense responsibilities for the production of both oil and gas in the United States. We have organized a Refining Division, and one section of that division is very busy administering a program to increase the manufacture of 100 octane aviation gasoline. We have organized a Supply and Transportation Division which has already proven to be of great utility and which has many important tasks before it.

As yet we do not have any division concerned with distribution and marketing, although our Materials Division does have specialists available to handle problems of the marketers with respect to equipment. If such a division is needed later, we will organize it, of course. While we have not yet activated a division to handle man power problems, nor a division to handle facilities security problems, we do have in mind the desirability of acquiring staff in those fields.

To handle our defense responsibilities concerning foreign petroleum, we have appointed another Assistant Deputy Administrator who in turn will supervise the activities of three Foreign Divisions that are still in the process of organization. One of these will be the Foreign Production Division, one the Foreign Refining Division, and the third the Foreign Supply and Distribution Division.

To administer defense responsibilities with respect to the transmission and distribution of gas, both natural and manufactured, we have appointed still another Assistant Deputy Administrator and we intend to establish special divisions of P.A.D. to handle gas transmission and gas distribution problems.

Naturally, all of these operating activities are supported by the usual and necessary staff activities. For example, we have an Administrative Division, a Public Information Division and a Legal Division.



Finally we have established a special division under the title "Office of Finance Counselor." This organization will provide expert counsel and advice to our operating divisions and to me concerning problems involved in recommendations for certifiicate of accelerated tax amortization, defense loans, and certifications to the Defense Department of extraordinary expense that may be incurred by petroleum refiners at our request in producing increasing quantities of special military products.

This reference to finance and price naturally raises the question about our relations with the Economic Stabilization Agency and the Office of Price Stabilization. Briefly, our relations with them are merely advisory. The Defense Production Act of 1950 concentrated responsibility for such matters in separate agencies and no part of that responsibility was transferred to Petroleum Administration for Defense. This too follows the pattern of World War II operations in which, on matters of price, the Petroleum Administration for War was merely advisory to OPA. We hope to be of real assistance to the Office of Price Stabilization by supplying it with such data as it may request concerning petroleum and gas and expressing our opinions on specific issues.

So much for the industry generally and the organization and procedures through which P.A.D. hopes to implement the defense program. Now I am ready for the second and last topic—the one in which I know you producers are vitally interested. I refer to STEEL.

When an individual citizen needs petroleum in any form, he can get it only by paying cash for it. However, when the economy of the United States as a whole needs petroleum in any form, it must use a different currency to purchase it. The transactions between individuals are carried out in paper dollars backed by gold and silver. On a national basis, the currency is STEEL. Steel for oil and gas wells, gathering lines, pipe lines, tankers, barges, refinery expansions and replacements, and tanks and terminals.

If steel is not provided for the petroleum and gas industries, the needed products cannot be forthcoming. We must pay for our oil and gas with steel coins. It is just as simple as the Chinese laundryman put it—"NO TICKEE, NO WASHEE."

Over a twenty-year history it has been found that we can bring to the surface roughly one barrel of oil for every pound of steel "invested" in oil country tubular goods.

One of the most difficult, possibly the most difficult and important, of all of the tasks facing defense mobilization officials is that of controlling the usage of steel in such a manner as to get the most good out of it for the over-all program. I have heard it said that not more than 75 million tons of finished steel shapes can be made available this year, and that 15 million tons will required for direct military projects. I know that the petroleum and gas industries need more than 11 million tons and I have heard that oil and gas plus power, plus transportation, plus atomic energy work, and plus farm machinery and food packaging will require over 30 million tons. Regardless of the accuracy of these particular figures, I will venture a guess that not more than ⅔ of the steel desired for uses other than those I have mentioned can possibly be made available this year.

Concerning all this I can only say —first, that if the steel supplied to our industries is not kept flowing to them, then the oil and gas programs cannot be carried out and—second, that I believe that the allocating authorities know this and will do their best to keep the supply coming to us. Contrasting our steel position now with the steel position

(Continued on Page 44)

Human Relations in the Natural Gas/Natural Gasoline Industry

By H. L. EGGLESTON

When one attempts an analysis of Human Relations in an industry such as ours, he is impressed with the magnitude of the job. Well qualified specialists have spent years in a critical examination of many phases of the subject. The literature abounds with impressive works that very effectively treat specific cases or that pave the way for an understanding of the basic, underlying elements that govern many Human Relations situations. For example, the recondite contribution of Alfred Korzybski as head of the Institute of General Semantics is well known and highly regarded as are the conclusions of many groups that have endeavored to understand the problem in its manifold phases. Many periodicals currently advance the views of competent investigators.

Time does not permit us today to undertake a comprehensive review nor to intensively examine the entire field. We are faced with the necessity for making a choice: We must either carefully examine one segment or phase or level that is representative of the whole; or we must find, if we can, and treat effectively a central theme, a key factor, or a common denominator that pervades all Human Relations situations.

I have chosen to do the latter, for there **is** a common denominator that characterizes all Human Relations situations wherever they occur. It is relatively simple; it is practical. If we develop skills in its use and apply them effectively, we'll progress far in the improvement of our Human Relations.

Where do we now stand? What kind of soil must we cultivate? Are Human Relations good or bad with us? We, in this industry, are exceptionally fortunate in many different respects. We do not need to be told that our environment is ideal and we know that (1) the intelligence level of our people is high, (2) the management of our companies is alert, well informed, competent, (3) our economic structure is favorable, (4) employment has been and is likely to remain relatively stable, (5) we have in this Association an ideal medium for the improvement of many procedures, many relationships not the least of which is our relationship to one another. For over the last twenty-five years we have progressed. Our Human Relations are good. However, we've reached no millenium. We can go much further. Today we're concerned with the "how." Let's then look first at the nature of our relation one to the other.

We, in this Association, are individual members—individuals related to other individuals. As individuals we operate in groups. Small groups, larger groups, combinations of groups that make up our companies. As individuals we also work in many locations and environments and on different occupational levels. But regardless of group or location or environment or level we, as individuals, are related to other individuals in our environment and outside. We are also as individuals related to many group functions. Man to man, man to boss, man to his unit (his plant, his laboratory, his gang) and man to his company. Or, more simply, man to man and man to group function.

Every Human Relations situation, wherever encountered, is individualistic in concept. Two or more human beings related to each other in an environment. Human Relations must be treated on the individual basis and on the group or function basis.

In this area there is a manufacturing organization that makes a product we use. They had excellent Human Relations for many years. But shortly before World War II, due to conditions we can understand, they were required to deal with outsiders purporting to represent certain of their employees. Human Relations deteriorated. Came the time, after the war, when a revision was demanded and the company found it could no longer tolerate the unfair tactics of those leaders who did not justly represent the views of their men. They broke with those leaders—were faced with a strike, and had to sweat it out for a period of months. But now, two years later, the relationship between all individuals in the organization, from top to bottom, is fine. The vice-president of that company told me recently that his guiding policy was to be fair to the interests of every individual employee. He said, "We are firm but we are fair. We try to understand the viewpoint of every man and we are loyal to his interests. We know that they understand the functions, needs and objectives of the company and the viewpoints of those who run it and that they too are loyal and fair. We have a warm personal contact with every man in our organization."

That, then, is the first step—a warm, personal, friendly understanding relationship between **all** individuals. All Human Relations are personal. If good, they are warm, friendly, understanding.

Someone will say, "That's all right for a small company but it won't work in a large group." But it will—if it's permitted to work or encouraged. In this audience today are several men who are employed by a large company that has had many Human Relations problems in the past. But the group in which these men operate is led by one of our members, here today, who has fostered in his group a warm, personal, friendly, understanding contact between all his men. Their Human Relations Quotient is high, in spite of handicaps imposed by the rela-

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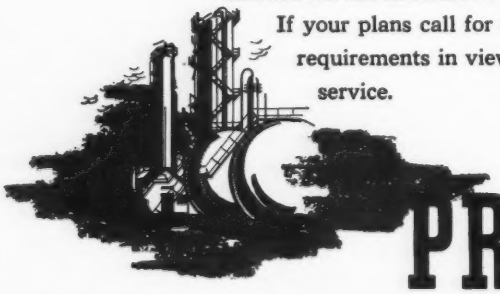

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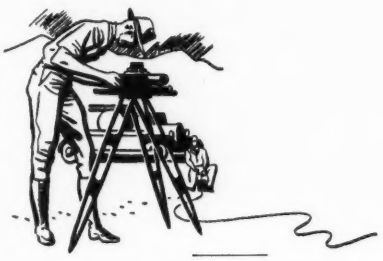
tively poor over-all position of the company at large. The men in this group work in complete harmony because they understand each other.

And understanding is a two-way responsibility. Understanding by each individual of the needs, interests, functions and viewpoints of the others he deals with. And in any organization, small or large, complete understanding must be fostered and achieved on the individual level and on the group level. The men who speak for Management must not only understand and treat fairly the interests and viewpoints of those not ordinarily a part of Management but they must verbalize and foster understanding of the functions, objectives and requirements of the company and of the units of which it is composed.

Our contacts with other individuals are for the most part verbal, but oral or written our communications must convey understanding. Let me quote from St. Paul's first message to the Corinthians: "Therefore, if I know not the meaning of the Voice, I shall be unto him that speaketh a barbarian." I would paraphrase that this way: "When I speak or write to you, I must make the meaning of my words so unmistakably clear that you cannot fail to understand." And **you** must be sure that you understand the meaning of the words I use. A two-way responsibility to achieve understanding. And we must use **words** to do it.

Let's look, then, at the $64 word "Semantics" which has been made to seem complex but which in reality should not be at all confusing. Semantics is simply "the science of the meaning of words." We here, of course, are dealing with semantics as a linguistic tool to improve our skill in achieving understanding; for if we are skillful in the choice of the words or word structures we use, we'll become more adept in enabling others to understand us. You can make Joe angry or pleased, resentful or cooperative by the choice of the words you use in talking with him. And, Joe's background and his viewpoints are important because words mean different things to different people, at different times, in different places. But far more important is the necessity for discrimination in the use of definitive "labels." Joe may be capable but you don't like him. If you show your resentment by condemning him with a "label" when you talk with others you'll destroy his usefulness to you and the company.



We have, say, in our organization a very brilliant, very capable man. He is well trained and in some respects is a genius in devising new procedures of great value to the company. He thinks ahead, is resourceful. But sometimes he irritates people. He's not always skillful in his use of words. And some monkey in the outfit perhaps intolerant, resentful or insecure—but certainly lacking in semantic skill—pins a label on that man by saying to others, "He's impossible, **no one** can get along with him—he's crazy." And that label, in time, creates misunderstanding, it comes to identify the man as a liability when in fact his talent is an asset. So he's sidetracked and his skill, his brilliance is lost to the company when all that's needed is a sincere effort to understand, a little tolerance and a little judgment and skill in the use of words. We don't improve Human Relations—nor efficiency—by the use of vicious, false, discriminatory "labels."

Many years ago I worked as the foreman of a small absorption plant under a man adept in the practice of good Human Relations. I was hot tempered, intolerant, as was the production foreman in that area. We were hardly on speaking terms, did not work well together and the company suffered. One day both of us were called in to the field headquarters by our boss who said, "I like both of you boys. You are both of great value to the company. But you don't get along well together. We are going to straighten out your differences before we leave this room." Turning to me he said, "Herb, what's your story; why don't you get along with Art?" I pinned the blame on Art, and he in turn blamed me. Finally the boss said, "I understand your troubles, know how silly your resentments are. And I know how fine your relationships can be if both of you try to understand each other and cooperate to set a good example for the rest of the organization. Forget your differences, shake hands and work together." We did—and out of that understanding grew a relationship that was of benefit to each of us and to the company. All because a man skilled in Human Relations taught two soreheads how to behave.

To me, the best understanding of Semantics, restricted for the moment to the linguistic field, can be gained by a study of two books by Bess Sondel—"Are You Telling Them"[1] and "Effective Speech."[2] Her observations are profound and for those who would like as laymen to understand more about the comprehensive field of General Semantics and do not have the time nor the preparation to appreciate the great value of Korzybski's extensive treatment, a review of Sondel and a study of a third—S. I. Hayakawa's "Language in Action,"[3] will help greatly.

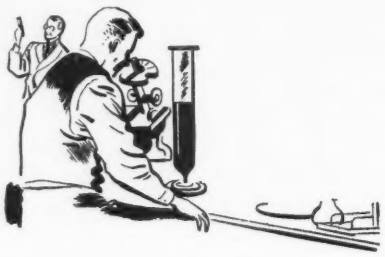
Two recent articles in Fortune demonstrate the importance of clear-cut communication and point out the real danger of insincerity. "Is Anybody Listening?" in the September, 1950 issue and "The Language of Business" in the November, 1950 issue. The concluding paragraph of the latter article is significant. It says: "If we make a **real** effort to win mutual understanding, we need have no fear of the infinite variety of our language, or the ability of our listeners to respond to it. When businessmen have something to say, and mean it and feel it, their audience will understand."

Much of the gobbledydook we've learned in recent years is a misuse of words that actually **destroy** good Human Relations. Too often we are insincere. We say things for effect, things we **think** we are expected to say. It's only when a man expresses his real feeling, only when he speaks warmly, from his heart, his real convictions that we can pro-

gress in Human Relations. Let's then forswear the "not words," the specious labels, the weasel words. Let's do away with "name calling."

So we come to human conduct, for we realize that all the fancy words we can employ will be ineffective unless we have in our own personalities a balance of those traits that will enable us to get along with others. To me—F. J. Roethlisberger in "Management and Morale"[4] points the way when he says, "In handling human relations logic alone will not avail. A human problem to be brought to a human solution requires human data and human tools. Collaboration is more a matter of sentiment than of logic." So—we are dealing with sentiments, emotions, feelings—are we? Let's look.

Charles Morris in "Paths of Life" links together a trinity of personality components with a similar trinity of ancient cultures that produced them. Albert Wiggam in "The Marks of an Educated Man" pictures these three ancient cultures beautifully and shows how greatly they have shaped the civilizations we've had during the last two thousand years and then Bess Sondel in "Are You Telling Them?" systematically wraps up the linkage of Morris in a package we as individuals can use—saying—"Life is a fusion of thinking, feeling, acting. We think, we feel, we act—that's all." Only when **all three** of these components are well developed and well balanced in a human being do we have a person skilled in achieving good Human Relations. Leave out any one, and the personality suffers. And so often, today, particularly at higher levels do we find a lack of the warmth (call it what you will—sentiment, emotion, feeling, dionysian component) that is so necessary in our relations with others. It seems to be an American trait for business leaders to combine cold logical reasoning with avaricious, grasping progress toward achievement with a total absence of the very human attribute of real warmth, real sincerity in their dealings with others. Occasionally the warmth is there, but buried, surrounded by a hard outer shell, deliberately submerged. The answer is not in specious expression of a warmth that's not there but in a balanced blend of all three components as an inherent basic requirement in a person genuinely interested in fostering good Human Relations.



No treatment of Human Relations would be complete without consideration of aptitude, performance or personality evaluation. Real progress has been made in recent years. The trend is excellent. For our purposes, the best summation of progress, trend and future promise is contained in the July 1950 issue of Fortune under the heading "The Tests of Management." The author tells of the experience of typical large industrial organizations in the United States, such as Sears Roebuck, Standard Oil of New Jersey, Ford, U.S. Rubber and many others in the use of various systems of evaluation to accomplish a variety of results. Many have not only used these procedures but have carefully appraised the results obtained. Study of the article is recommended as detailed comment might lead to misunderstanding. However, some observations as to limitations and promise appear justified.

1. The background and skill of the interviewer is of prime importance. Few individuals are competent to conduct interviews nor to draw valid conclusions from the responses.

2. The test alone is not sufficient —should not only be verified but supplemented by judgment gained through other means.

3. Present tests have a time relationship. Dated. Joe today is not Joe yesterday nor Joe tomorrow. Joe's response today may stem predominantly from some life situation that is changing, will change or that has changed.

4. Predictability of future development or performance from today's test of aptitude or personality is of doubtful value. We say, "Here's Joe today"—but we can have no assurance of adherence to a present or past pattern.

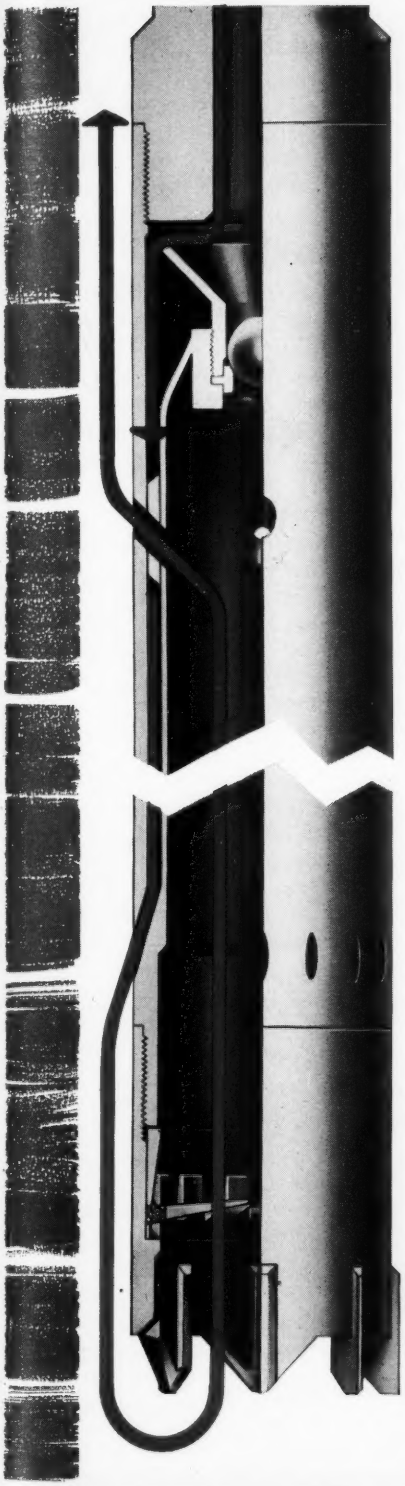
5. Present tests are for the most part diagnostic. Some agents, such as Rohrer, appear to recognize the need of revealing Joe to himself and guiding him in growth and development. Most systems seek to evaluate, measure, compare.

6. The major future promise seems to be that procedures will come that will enable the development of the men in an organization.

If properly conducted and if the results are properly used such tests can be of inestimable value. Many existing faults, shortcomings and limitations will undoubtedly be overcome. Better procedures will evolve that will not only enable us to assess and evaluate but that will reveal unsuspected potentials and encourage their development. There's the real promise. No finer contribution could be made in promoting good Human Relations than to use such a tool for the development of the individual.

What procedure **is** available now to an alert individual for self-improvement in personality? What can Joe do to help himself? I can speak with authority about one possibility. "I vas dere Sharley." I've seen over 50 individuals from many walks of life improve their Human Relations Quotient phenomenally in a relatively short period of time. They've been led to a real understanding of their relationshiu to others and have been taught what to do about it. They've released, for effective use, abilities they never knew they had. The cost and the rigor of full participation is sufficiently high to discourage many but those who go through benefit greatly. Human Relations instruction **is** available to those who want to grow.

Significant also is the fact that this type of instruction has been adapted for use by many large industrial organizations for training their key men. This is certainly a step in the right direction and the practice should be encouraged. Such instruction, properly designed to fit the needs of specific groups in our



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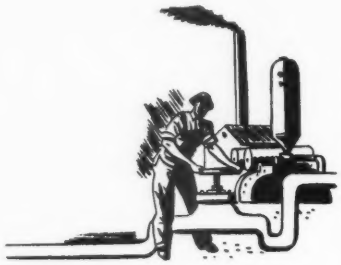
industry would be most effective in promoting good Human Relations.

Many times recently I've heard the comment voiced by leaders in our industry and in others that the thing we need is a "Spiritual Renaissance" and I agree. But this is a vague generalization that is hard to pin down. A man's religion is, to him, a private, personal matter. Hard to talk about. Something apart from his daily living. Many men deny interest but deep down in each of us there is an inner conviction or urge or principle or "feeling" that influences greatly our daily coduct —the way we live. Why not admit honestly that it's there? That it's a dominant influence, practical for everyday use, that it's YOU, that you're proud of it. For, down through the years from ancient times have come perfectly valid precepts for right living—for good Human Relations. Different perhaps to different people but all possessing a central core that is consistently uniform no matter what creed or belief a man may profess. And that central core is **loyalty.** Loyalty to a God, a creator, a friend, an individual; to a cause, a principle, a function, an objective; to a group, a team, a company.

We as individuals must develop to a high degree and build into our daily living a concept of loyalty to the needs, interests, viewpoints, and objectives of the individuals and the groups we serve. And our loyalties to individuals and groups must be consistent—not subversive to the interests of the central function to which we are chiefly related. And when we are loyal to and serve well the individuals and the groups we are related to, we will need to emphasize to a greater degree the development in balance of that neglected dionysian component in an enthusiastic service to our team and the groups and individuals related to it. And no one who knows what happened at the Los Angeles Coliseum on November 18th and again on December 2nd can deny the benefit of a fusion of thinking, feeling, and action in a team effort based on loyalty to a function.

I've said that "there is a common denominator that pervades all Human Relations situations." Let us then sum up by reviewing the elements of which it is composed. We've seen that:



1. Human Relations is individualistic in concept.

2. Relativistic in that each individual is related to other individuals and to group functions.

3. Understanding is a must. Understanding of the needs, viewpoints and interests of the individuals we are related to and of the objectives, functions and requirements of the groups of which we are a part.

4. W must develop skill in communication.

5. We must develop in our own personalities, uniformly and effectively, the three character components of thinking, feeling, and action.

6. We must serve effectively and loyally the interests of the individuals and the groups to whom and to which we are related.

7. We must fire our service with an enthusiasm, with a zeal, that will bring out the best that's in the individuals who make up our team.

We, as individuals in this Association, have a surpassing opportunity. For if we will build such a concept into our souls and live it and feel it, we'll do more than build good Human Relations — we'll forge a magnificent pattern—and we'll make our world a finer place in which to live.

REFERENCES:

(1) Bess Sondel, "Are You Telling Them?", 1947, Prentice-Hall, Inc.

(2) Bess Sondel, "Effective Speech," 1950, Garden City Publishing Co., Inc.

(3) S. I. Hayakawa, "Language in Action," 1941, Harcourt, Brace and Company, Inc.

(4) F. S. Roethlisberger, "Management and Morale," 1949, Harvard University Press.

Presented before a recent meeting of California Natural Gasoline Association.

New Geology Bulletin Available

Announcement is made by Olaf P. Jenkins, Chief, Division of Mines, that Bulletin 150, "Geology of Southwestern Santa Barbara County, California," by T. W. Dibblee Jr., is now ready for distribution. This report covers the Point Arguello, Lompoc, Point Conception, Los Olivos, and Gaviota quadrangles, which comprise an area of 700 square miles.

The author of this comprehensive report, T. W. Dibblee Jr., spent some 20 years studying the region, partly as a private venture in research, and partly in the employ of two major oil companies.

Bulletin 150 contains a history of the early days of the county, from the time of the explorers to the present day. It describes the geographic features, geomorphology, stratigraphy, structure, geologic history, and mineral resources. The economic minerals in the area include oil and gas, asphalt, diatomite, limestone, bentonite, flagstone, road gravel, manganese ore, and ground water. Three important oil fields are described — the Capitan, Lompoc, and Zaca, as well as the world's largest diatomite quarries — the Johns-Manville and the Dicalite.

The geology of the area is described in great detail and graphically shown on colored lithograph topographic maps of the five quadangles; there are also economic maps, structure sections, aerial maps, and stratigraphic columns. The report also contains aerial photographs, and pictures of various structures in the area.

The folded maps and book fit into a heavy cardboard box bound in tan cloth. The price of this bulletin including maps is $5.00. The geologic and economic maps of the Lompoc, Point Conception, and Point Arguello quadrangles may be purchased separately for $1.50 per set. Geologic and economic maps of the Los Olivos and Gaviota quadrangles may be purchased separately for $1.50 per set. Geologic structure sections across southwestern Santa Barbara County may be purchased separately for $0.50 each.

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Field Development

Los Angeles Basin

Honor Rancho Test Flowing

Texas Company has finaled its third well in the recently opened Honor Rancho field near Castaic. The well came in from 5574 ft. flowing at the rate of 600 barrels of 35 gravity oil daily. Location is some 1000 ft. east of the company's No. 1 discovery and its performance paves the way to considerable new ground to development. Texaco has moved approximately 1000 ft. south and 100 ft. east of the new producer to drill No. 4 located 3783 ft. south and 1508 ft. east from the northwest corner of Sec. 6-4n-16w. The company's Daries No. 1 at last reports was coring and drilling ahead at 2800 ft. on Sec. 2-5n-17w. At Puente Nose, Texaco's No. 1 on Sec. 6-2s-10w continues to probe deeper at 4230 ft. Some 1800 ft. south of production in the Montebello area, Shofner No. 1 has been completed on the pump by the company at a redrilled depth of 3781 ft. Initial output was 130 barrels gross. Original bottom of the well is 7828 ft.

Chatsworth Wildcat Quits

Following redrill operations to 2157 ft., John McKeon has abandoned the Dotta No. 1 wildcat well on Sec. 19-2n-16w, one and one-half miles southeast of the town of Chatsworth. The project, at Nordhoff and De Soto streets, was drilled originally by Coast Exploration Company to 2938 ft.

Newhall Test Grading Site

Southern California Petroleum Corporation has started work on its N. L. & F. No. 1 on Sec. 20-4n-17w, northwest of the Newhall-Potrero field and south of the Del Valle area. The well is designed to go at least 9000 ft. on a block of 1260 acres held by the company. Location of the new drilling job is a short distance northwest of Union Oil Company's N. L. & F. No. 1, which was carried to a bottom in hard shale around 7000 ft. before quitting in December 1942. Pacific Western's Encinas Fee No. 1 test on the section has been put on the pump. Drilled to a total depth of 7867 ft., representative gauge was not available at this writing. On Sec. 8-4n-17w, the Brinkman Oil Operators Monte No. 1 wildcat has been spudded and is drilling in the shallower formations.

Continental Oil Company's Bixby No. 5 in the Seal Beach Field. (L. to R.): F. W. Dawson, floorman; E. W. Hegwer, head well puller; Fred Daugherty, floorman; J. R. Gilchrist, derrick.

Castaic Field Extender Good

Humble Oil & Refining Company has run 7-in. casing and set it at a point above bottom at 10,651 ft. in N. L. & F. No. 4 extension test on Sec. 19-4n-16w at Castaic Junction. All reports agree that the company has cored about 300 ft. of oil sand in the well, which enhances a wide area yet to be developed by the fact it is two miles from Humble's No. 3 well. Formation tests of the well put it in the possible 1000-barrel-daily class. It is near highway 99 and the conjunction with the Saugus road. In the Oak Canyon area, Humble's N. L. & F. No. B-1 on Sec. 12-4n-17w continues to drill deeper below 12,150 ft. Northwest of Saugus, the company has started work on its N. L. & F. D-1 on Sec. 9-4n-16w.

Bandini Try Digs

Los Nietos Company's CCMO et al No. 1, a wildcat well on Sec.

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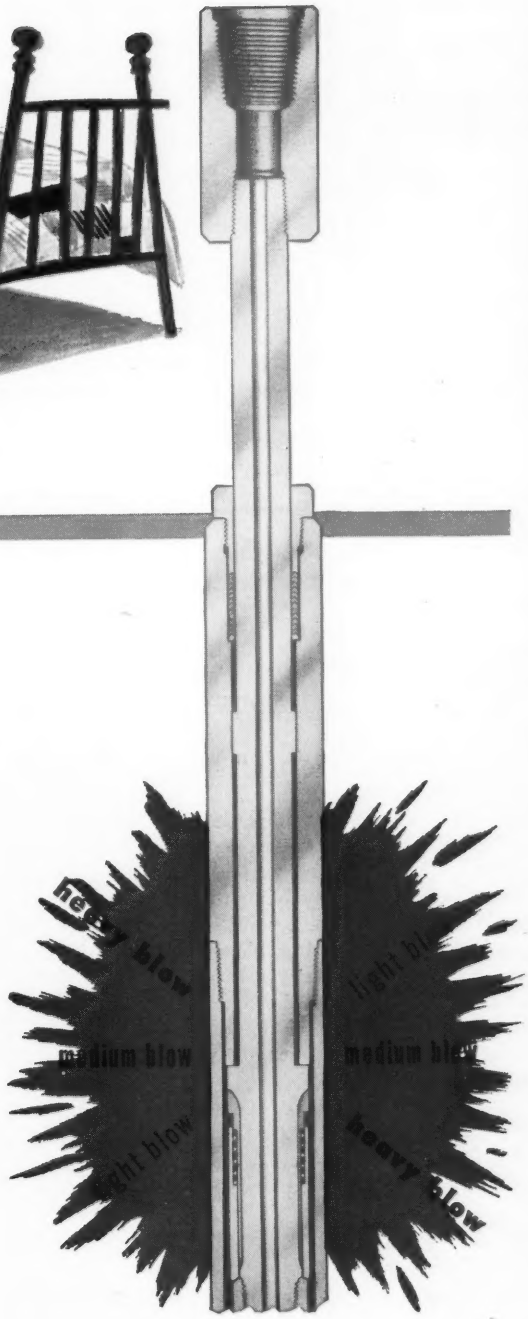

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18-2s-12w in the Bandini area, is coring at 8300 ft. as this report was set down.

Saugus Test Now Redrills

Superior Oil Company has plugged back its Bonelli No. 14-23 on Sec. 23-4n-16w in the Saugus area and is redrilling the hole. The well went to 8969 feet and evidently found something of enough interest to prompt the company to redrill. In Devils Canyon, Los Nietos Company's Alexander No. 1 wildcat on Sec. 22-5n-17w is coring ahead below 2550 ft. At Bartholomaus Canyon, W. W. Bush has reached a depth approximating 3650 ft. with Bush Bar No. 1 on Sec. 6-2n-14w. In the Newhall area, Talisman Oil's No. 1 on property leased from the Braille Institute of the Blind is making hole at 1970 ft. The derrick is on Sec. 1-3n-16w.

Oak Canyon Test Digging

On Sec. 5-4n-17w in the Oak Canyon area, Western Gulf's Foley No. 2 is making rapid time through the shallower formation. Trigood Oil's Ayala No. 1 exploratory hole on Sec. 29-5n-17w in the Loma Verde area is slugging away below 5950 ft.

Chino Hills Test Ground

Havenstrite Oil Company is about to spud its Bannon No. 2 test well on Sec. 32-2s-8w in the Chino Hills, San Bernardino County. The No. 1 test on the same section was converted to a water well after failing to find commercial oil to a total depth of 1945 ft. L. H. Cameron's No. M-4 on the section, an extension test, at last reports was swabbing for production. Total depth is 1461 ft. and plugged bottom 1210 ft.

Joaquin Try Digs

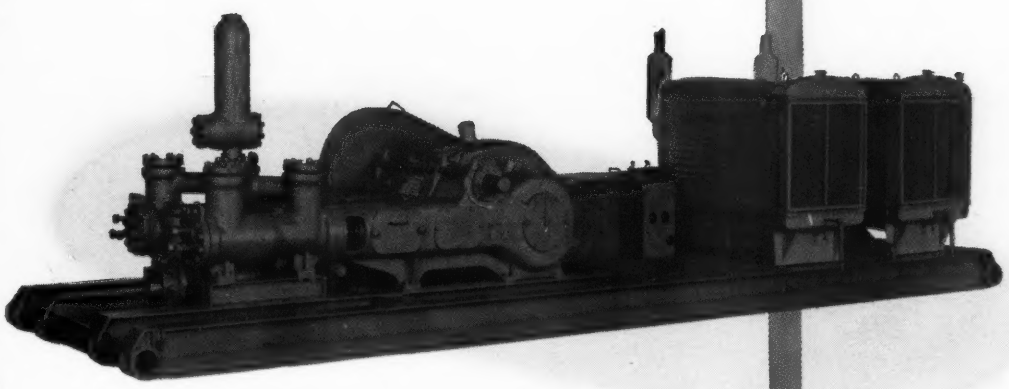
In the San Joaquin Hills, Shell Oil's Irvine Ranch One No. 166-1 continues to prospect drill ahead at 7000 ft. on Sec. 11-7s-9w, Orange County. At Corona Del Mar, the company's Irvine Four No. 51-130 on Sec. 5-7s-9w is digging below 6600 ft. Incidentally, Shell's crude oil reserves at the start of the year current were greater than January 1, 1950, despite withdrawals during the year of 72,216,000 barrels. The Company's refineries in 1950 exceeded the record throughput of 1949 by about five per cent.

Oil Demand Going On Up

H. S. M. Burns, president of Shell Oil Company, said in New York that the United States will probably increase its demand for petroleum products 47 per cent in the next 10 years. Burns told a meeting of the New York Society of Security Analysts that by 1960 domestic demand may soar to 9,500,000 barrels a day, "and in saying this," he remarked, "I am in no way assuming continued boom conditions." The oil executive pointed out that the increase in demand last year was the highest since the end of the war. He forecast domestic demand would rise to around 7,000,000 barrels a day during 1951. It was 6,499,000 barrels last year.

Members of Congress and officials in the executive branch of the Federal Government here have been the recipients of literature from the Chamber of Commerce at Long Beach, Calif., calling for restoration of the tidelands to the states. By resolution the chamber said "the Supreme Court ruling holding that the states do not own their tidelands created a legal principle whereby the Federal Government could seize natural resources claimed essential to the national defense without compensation. Such principle not only threatens immediate nationalization of all resources existing in coastal submerged lands but also threatens ultimate nationalization of vital resources everywhere in the United States."

Dr. Charles F. Kettering, vice president of General Motors Corporation, disclosed here that a new automobile engine is being worked out which will use not more than half as much gasoline in general driving and less than 60 per cent in ordinary city traffic.



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NATIONAL OIL FIELD MACHINERY AND EQUIPMENT . . . SPANG PIPE . . . SUPERIOR & ATLAS ENGINES

San Joaquin Valley

Sunset Beach Venture Idle

Idle at a depth of 565 ft. was the status as this is written of the Sunview Oil Company's Sunset Heights No. 1 test at Sunset Beach, Sec. 29-5s-11w, Orange County.

Tranquility Wildcat Quits

Texas Company's Sutherland No. 1 explorer on Sec. 1-16s-14e in the Tranquility area of Fresno County has come to naught at a depth of 7820 ft A formation test of the interval of 7591 to 7713 ft. showed little of oil interest. Sidewall samples are being taken with the L. M. Lockhart England No. 1-31 wildcat at Panoche Creek on Sec. 31-14s-13e, which is down at present to 10,200 ft. In the Kerman area, drilling and coring has reached 3800 ft. in Honolulu Oil's Ponte No. 1 test on Sec. 24-13s-16e. Signal Oil & Gas Company's Signal-Camino No. 1 on Sec. 31-21s-15e in the Curry Mountain area continues to probe deeper at 5140 ft. Northwest of Coalinga, Max Pray & Elisha Walker are poking away at 3200 ft. with No. 74-19 test on Sec. 19-18s-15e.

Wheeler Ridge Test Rigging Up

Hancock Oil Company is rigging up for its KCL No. 52-35 on Sec. 35-11n-20w in the Wheeler Ridge area. This location is southwest of the company's No. 61-35, which was abandoned recently at 6500 ft. A formation test recovered gas cut mud and some oil. Southwest of Wheeler Ridge in the Pleito Hills, Humble Oil & Refining's KCL-B No. 1 on Sec. 35-11n-21w is coring at 3800 ft. A formation test of some oil showings from 3694 to 3730 ft. denoted gas, but no oil. It is believed that the tester plugged so the trial cannot be considered conclusive. Location is near the center of about 100 square miles of property owned by the Kern County Land Company.

Tejon Area Developing

Reserve Oil & Gas Company has started it Tejon No. 66-33, an extension test of the Tejon-Reserve area on Sec. 33-11n-19w. Drilling & Production Company's OMB No. 46-33 on the section is digging on down at 1980 ft. The Tejon Ranch Company reportedly will seek stockholders' approval of a 900 per cent stock dividend at the annual meeting to be held in Los Angeles, April 2. The company has 108,000 shares of $1 par capital stock outstanding. After the dividend there would be 1,080,000 shares outstanding. Between Steele Petroleum Company production in the Tejon Hills and the Comanche Point field, Cliff Zillgitt is about to begin drilling Morris No. 1 on Sec. 4-11n-18w. Northeast of Comanche Point, the Kova Petroleum Associates Kova-Pet No. 1 has been temporarily suspended at 1029 ft.

Atlantic Oil Company's Simmon No. 1 in the Huntington Beach Field. (L. to R.): L. C. Holland, floorman; T. E. Turrentine, floorman; W. E. Klingensmith, floorman; F. W. McCain, head well puller.

Maricopa Try Drills

British-American Oil Producing and Steele Petroleum's Snook & Wells No. 31-12 test on Sec. 12-11n-24w at Maricopa is still drilling steadily ahead near 2500 ft. Gene Reid Drilling Company has taken the 40-acre Calvada lease about a mile and one-half southeast of Maricopa. The ground is in Sec. 7-11s-23e and is offset on the west by Standard Oil's Monarch property and to the east by Birch Ranch property. In the event the Snook & Wells venture finds something in the deeper formations, Reid may seek to duplicate the performance with a well on his new property.

Gould Hills Wildcat Fails

An electric log run to slightly below 7000 ft. was the chapter concluding Los Nietos Company's search for new oil with its Richardson No. 81-18 on Sec. 18-29s-21e at Gould Hills. The hole went to 7810 ft.

McDonald Try Flows

Glenn C. Ferguson and I. W. Bosworth of Bakersfield have completed Layman No. 1 on Sec. 18-28s-20e in the McDonald Anticline area for a flow of 450 barrels from 2833 ft. The Buttonbed zone was topped at 2099 ft., with the Lower Agua at 2757 ft East of Salt Creek, the operators have relegated to history Porter Comm. No. 1 which had a dusty journey to 1150 ft. on Sec. 19-29s-21e.

Antelope Hills Wildcat Digging

North of Antelope Hills in San Joaquin Valley, Texas Company's

Measure any other pressure control equipment against the advantages of the

SHAFFER COMBINATION ROTATING BLOWOUT PREVENTER AND STRIPPER

There's only one way to fully appreciate the unequalled pressure protection you get in the Shaffer Combination Rotating Blowout Preventer and Stripper... that's to measure—point-by-point—*any other* equipment on the market against the unique operating features incorporated into this unusually effective unit. For example...

MEASURE FOOL-PROOF DEPENDABILITY!

The Shaffer Combination Rotating Blowout Preventer and Stripper maintains its leak-proof seal *continuously* while pipe is in the hole. There is nothing to *operate*, nothing to *remember*, nothing to *forget*, when sudden pressure emergencies occur. The unit is *always* sealed off around the drill string, ready for instant protection against pressure blowouts!

MEASURE ALL-AROUND ADAPTABILITY!

The Stripper Rubber seals off around *any shape or diameter* in the drill string (excepting such abnormally large diameters as the bit and reamer). Automatic expansion and contraction accommodates any type of kelly—square, hexagonal or octagonal—as well as couplings, tool joints, subs, drill collars and pipe, whether flush, coupled or upset. *No special equipment or special pipe is needed with this unit!*

MEASURE TROUBLE-FREE OPERATION!

Since the Stripper Rubber rotates *with* the kelly—not around it—there is virtually no wear on the rubber. Patented steel reinforcing latches provide an expandable steel barrier that prevents extrusion of the Stripper Rubber either by high pressures or by pulling large diameters through it—yet maximum elasticity of the rubber is maintained. In addition, the bearing assembly upon which the unit rotates has separate thrust and radial bearings to withstand the severe loads occasioned by modern drilling practices... and the bearings are lifetime prepacked with heat-resisting lubricant. Maintenance is negligible!

MEASURE OPERATING SIMPLICITY!

When the drill string is in the hole, adjustment to different diameters and shapes in the string is *completely automatic*—no manual operations are necessary. When running large tools such as bits or reamers through the unit, simply pull a spring latch, rotate the bonnet 1/6 turn and the entire internal mechanism as a unit can be withdrawn to permit removal of the tools. Simply reverse the operation when going back into the hole.

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The Shaffer Combination Rotating Blowout Preventer and Stripper is so engineered that vertical height in the drilling riser is kept at a minimum. It can be installed even under the most difficult space limitations. Moreover, flow connections built directly into the body eliminate need for spools or other equipment for overflow connections.

These and other unique advantages of the Shaffer Combination Rotating Blowout Preventer and Stripper—plus the *quality* that is built into every part—make it the most *efficient*, most *versatile*, most *practical* pressure control unit yet developed. Investigate and compare it with *anything else* on the market!

Write for complete details on the Shaffer Combination Rotating Blowout Preventer and Stripper—or see your nearby Shaffer representative.

Send for your free copy of the new Shaffer Catalog. See pages 4433 to 4496 of your 1950 Composite Catalog for helpful data on the complete Shaffer line of field-proven products!

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Effie Martin No. 1 wildcat well on Sec. 14-27s-19e continues to make headway with the drill at 1504 ft. On Sec. 27-31s-29e at Arvin, the company's Kovacevich No. 1 is exploring at 8980 ft. The area is famed for its spring wildflowers. They came earlier than usual this year. Red bud is already blooming and blue lupine and manzanita may be seen.

Reef Ridge Wildcat Digs

Growing deeper is the Sunray Oil Corporation's wildcat well at Reef Ridge in Kings County. The project at last reports was grinding away at 10,900 ft. on Sec. 9-23s-17e. Name of the well is Lynch-Mauren No. 68-9

Poso Try Programmed

Riokern Oil Company has staked location for its S.P. No. 2 test on Sec. 3-27s-28e in the sector north of the Mount Poso field proper. Work is expected to start immediately.

Lost Hills Test Ready

General Petroleum is ready to drill its Williamson No. 34-12, a deep test on Sec. 12-26s-20e in the Lost Hills area. Location is at the north fringe of the Williamson property and one mile east of the company's Williamson No. 33-11, which was given up early last summer after going to 11,555 ft. The latest try is scheduled to go to around 7000 ft. where fractured shale is expected to produce.

Dead Ox Try Quits

At Dead Ox Creek near Mount Poso, Yellowstone Oil Company's KCL No. 14-16 wildcat test on Sec. 16-26s-28e has been abandoned at 1047 ft. Electric log run was a prelude to abandonment.

Belridge Try Pumps

Pumping oil with a rather high initial cut of water, International Drilling Company, Operator, has added the final touch to No. 1 test on Sec. 24-28s-20e in the South Belridge sector. The crude is 25 gravity.

Devils Den Venture Bails

Reports at this writing indicated that Gilliland Oil Company's Strode No. 1 one-half mile west of production at Devils Den had sanded up while bailing. Located on Sec. 15-25s-18e in the northwest corner of Kern County, the well is bottomed at 1921 ft. Although in the no dope category, the project unofficially is credited with a new discovery of some degree of worth. San Francisco and Fresno Land Company are among operators which are said to have recently acquired property in the area.

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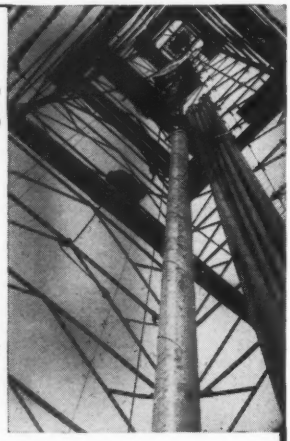

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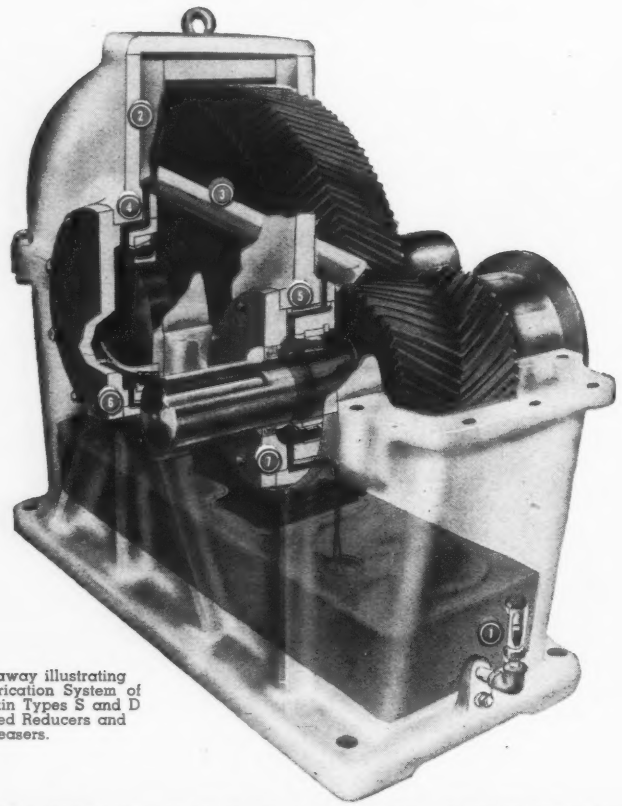

Cutaway illustrating Lubrication System of Lufkin Types S and D Speed Reducers and increasers.

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So. Calif. Meter Ass'n April Meeting

The Southern California Meter Association will hold their April meeting on Thursday the 19th of April at the Rio Hondo Country Club, at Downey, California. Dinner will be at 6:30 and the meeting will start promptly at 8 P.M.

The first feature of the meeting will be "Telemetering; using leased Wire Circuits, Remote Control as used by Pacific Gas and Electric, Southern California Gas Company and Bonneville Power Administration." The paper will be illustrated with working models. The talk will be illustrated with working models and will be given by Mr. J. W. Peckham, Bristol Company.

This will be followed by "Special adaptation of Telemetering by Southern Counties Gas Company." The speaker will be Mr. W. L. Mashetter, Southern Counties Gas Company.

Barstow Plant Under Construction

Preliminary construction work has been initiated on the big Hinkley compressor station of Pacific Gas & Electric Company's new "Super Inch" natural gas main, eight miles west of Barstow. The station is on an 8½-acre site. Largest of three to be built, the station will incorporate seven compressors with a total capacity of 17,500 horsepower. The main compressor building will be 233 ft. long and 50 ft. wide. Two other stations will be built. One will be up at Toprock and the other at Kettleman Hills. The three plants will call for an expenditure of $12,000,000 and will enable P. G. & E. to boost the pipeline transmission capacity from its present 200,000,000 cubic ft. daily of Texas and New Mexico natural gas to 400,000,000 cubic ft. a day by the coming fall.

Lopez Canyon Wildcat Drills

Terminal Drilling Company's interesting wildcat well in Lopez Canyon is making progress with the drill at 1575 ft. The venture is known as Lloyd No. 1 and is on Sec. 36-3n-15w, Los Angeles County.

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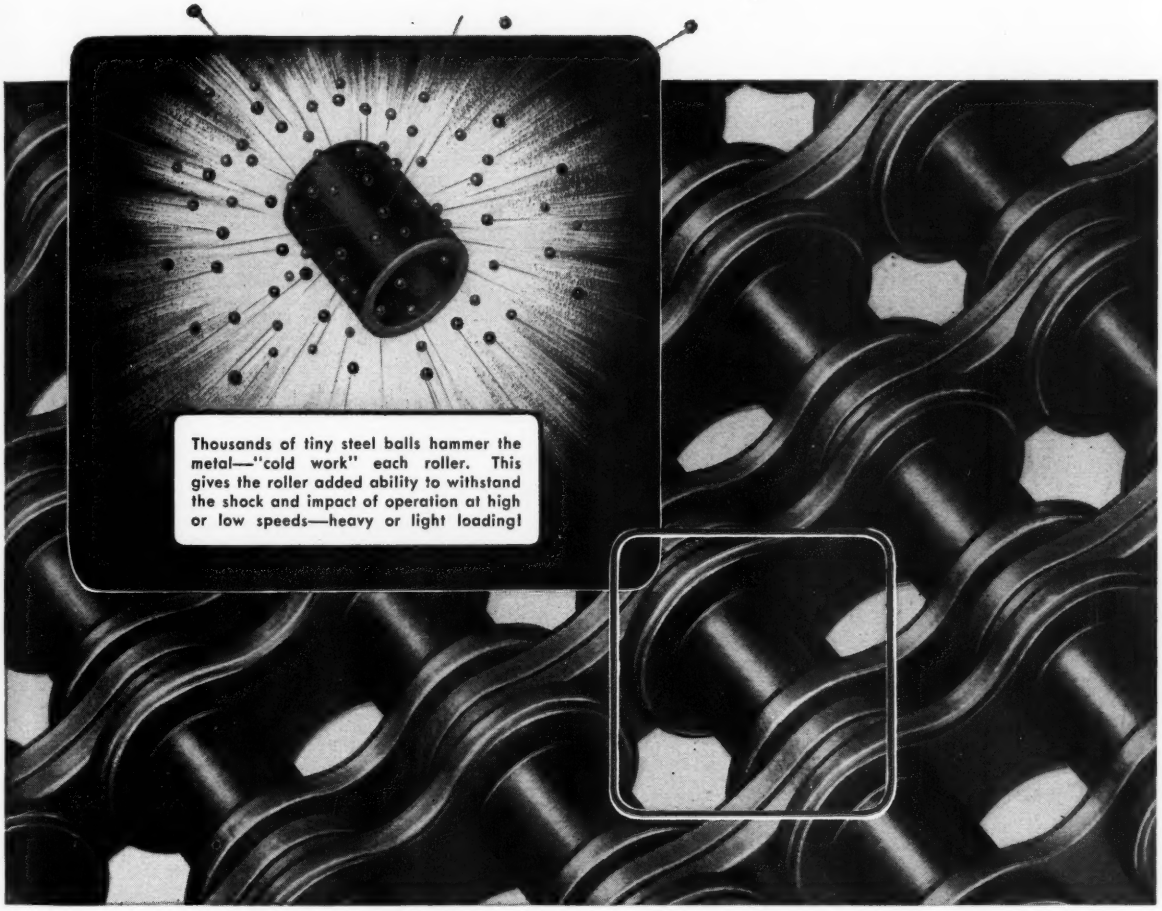
Thousands of tiny steel balls hammer the metal—"cold work" each roller. This gives the roller added ability to withstand the shock and impact of operation at high or low speeds—heavy or light loading!

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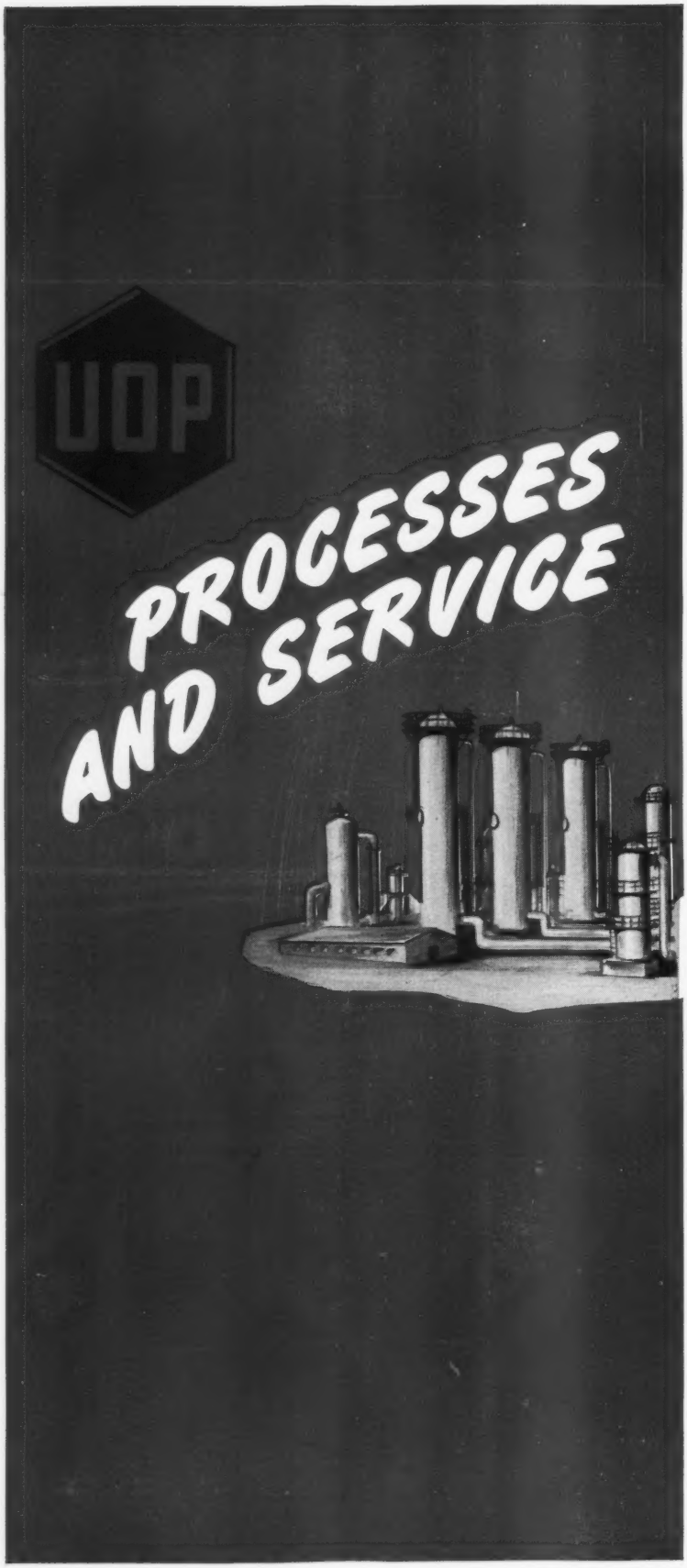

Platforming Unit to Upgrade Kendall Straight Run—Add Facilities for Defense

By Howard V. Smith,
Refinery Superintendent
Kendall Refining Company

Our decision to install a 1500 barrel Platforming unit was made in recognition of the constantly upward trend of gasoline octane ratings for the knockless operation of increasingly higher compression motors. However, from the beginning possibilities inherent in this type of plant for the production of petro-chemicals were thoroughly explored and excess capacity was incorporated in the design so that modification could be made at a later date for that purpose.

Howard V. Smith

Competitive Situation Called for Higher Octane

A survey of gasoline quality in the nearby Pittsburgh area revealed the following average octane ratings for house brand and premium motor fuels:

	Research Method	*Motor Method*
House Brand	86.2	80.2
Premium	91.8	83.1

Bradford Grade Penna. crude, to which Kendall, being one of the largest producers of 100% Pennsylvania grade lubricating oils, is committed, contains a relatively high proportion of low octane gasoline and naptha which cannot be brought up to the above standards by the addition of tetraethyl lead alone.

This crude runs about 40% gasoline and naphtha, boiling up to 400°F. end point. Sulphur content is low and the combined product has excellent volatility. The research octane number is 50 clear and 70 with 3cc's TEL. Twenty-three per cent of the crude oil is available for cracking in the Dubbs continuous coking plant which yields 77 per cent of cracked gasoline and polymer on the charge. Thermal reforming of straight run naptha is included in the Dubbs plant operation.

All Processes Explored

Our engineers made a thorough study of available processes before reaching a decision that Platforming offered the most economical solution to our problem. Engineering studies showed that thermal reforming to the extent considered economical would still leave the anti-knock quality of the product short of the ultimate goal.

Pilot plant studies in the Universal Oil Products Company's laboratories demonstrated that the Platforming process would convert the 400 end point full boiling

range gasoline into 95 octane gasoline with 3cc's TEL, with a yield of more than 90 per cent by volume. Details of this pilot run are expressed in the following table:

Inspection of Kendall Straight Run, Fractionated Reactor Charge and Stabilized Platformate

	Full Boiling Range Straight Run Gasoline	*Reactor Charge*	*Platformate*
API Gravity	64.9	58.0	58.2
IBP	90	180	102
5%	117	201	134
10%	136	211	150
30%	198	235	188
50%	243	264	225
70%	290	306	262
90%	358	360	327
95%	381	377	364
EP	394	399	411
RVP	10.3	0.7	9.5
Octane Ratings			
F-1 Clear	50.1	40.2	84.1
F-1 3cc's TEL	69.7	61.2	95.3
F-2 Clear	49.5	38.0	78.8
F-2 3cc's TEL	69.5	60.8	87.9

Consideration of Defense Requirements

Another consideration was the fact that in the event of a drastic shift in requirements due to the impact of a defense or war economy on the nation, our Platforming facilities could be converted to the production of aromatics, aviation gasoline components, benzene, toluene and other petro-chemicals which might be needed for military purposes. While this conversion would require certain modifications in the unit itself, as well as additional feed stocks from outside sources, the change-over would not radically disrupt our operations and full utilization of the new unit would be possible.

Special Design Features

The plant design for our Platforming unit, incorporates some special features, particularly applicable to our circumstances. Since our charging stock is well fractionated and free from heavy ends, it was decided that a suitable reactor charge stock could be prepared from it by distilling off the light ends in a depentanizer. Utilization of this method instead of a prefractionator, reduced size of the equipment as well as the operating cost.

Air contamination of the charge stock will be minimized by blanketing the charge tanks with dry gas from the vapor recovery unit of the refinery. The depentanizer overhead will be depropanized to produce a blending stock for volatility control. Depropanizer overhead will be charged to the Platformer stabilizer to reduce butane loss. Recycle gas and reactor charge will be mixed before entering the heater and heated as one stream instead of separately.

Our new Platforming unit was designed by Universal Oil Products Company in collaboration with our engineering department. It is being erected by Procon Incorporated, and is expected to go on stream in March of 1951.

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Visalia Try Quits

Ebonoro Oil Company is understood considering another test well in the Visalia area of Tulare County. Recently given up was the company's Alves No. 1 on Sec. 15-17s-25e. It bottomed at 455 ft. in granite.

Edison Wildcat Interesting Try

Southeast of the Edison field, United Exploration Company of California, a Bakersfield organization, has started work on its United-Di Giorgio-Bell No. 1 on Sec. 36-30s-29e. Back in the fall of 1934, Petrol Corporation abandoned its Petrol-Welch No. 1 about 700 ft. east of the new job. The prior test found wet oil sand from 915 to 1036 ft. in traveling to a total depth of 2677 ft. At West Edison, California Exploration and Macmillan Petroleum are punching down below 3100 ft. with Porter No. 28-2 on Sec. 28-30s-29e. In the Edison Groves area, Richfield Oil's Shield-Arms No. 71-32 on Sec. 32-29s-29e is redrilling at 3356 ft. The hole was carried first to 5595 ft.

Cuyama Valley Wildcat Duster

Bottomed at 1604 ft. in the Cretaceous, E. H. Christian Drilling Company's Christian No. 1 on Sec. 33-11n-28w has been abandoned. In the Taylor Canyon field in Cuyama Valley, Universal Consolidated's Humble No. 54-31 on Sec. 31-32s-20e is making hole below 5700 ft. The project may be a factor determining whether the Taylor Canyon field is headed for importance or not. So far the field contains two wells producing, with five dusters drilled around it. The Universal Consolidated test is on the only side left open to possible expansion of the field. R. B. Watkin's Luce No. 1 wildcat on Sect 14-11n-28w is digging below 1200 ft.

Kern Front Test Drills

Seeking to extend the producing area at Kern Front, Independent Exploration Company's Kramer No. 1 at last reports was making hole below 2100 ft. on Sec. 34-28s-27e.

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Rincon Weel Deep

In the Rincon field in Ventura County, C.C.M.O. Company's Hobson B No. 160 on Sec. 17-3n-24w is making headway with the drill below 10,600 ft. In the Simi field, Union Oil's Simi No. 14 on Sec. 36-3n-19w is digging at 2950 ft. Drilling is at 2680 ft. in Richfield Oil's E. P. Clark No. 10 on Sec. 14-4n-21w in the Timber Canyon field.

Sisar Test Written Off

Going the way of all dusters, Jergins Oil's Hillside No. 1 wildcat in the Sisar-Silverthread area, Sec 8-4n-22w, Ventura County, has been abandoned at 8868 ft.

Orcutt Job Begins Work

In the old Orcutt field, Santa Barbara County, Rice Ranch Oil Company has begun work on its Brookshire No. 14 on Sec. 23-9n-34w. At Santa Paula, G. & S. Exploration is drilling G. & S. No. 1 on Sec. 27-4n-21w.

Rio Vista Well Good

Standard Oil of California has finaled its Elliott Unit No. 5 in the Rio Vista field for 3,332,000 cubic ft. of gas daily from 4675 ft. Top of the Main Domengine formation was picked up at 4388 ft. Texas Company has staked location for Darsie No. 1 on Sec. 17-4n-4e.

Conejo Try Digs

In the Conejo sector, Ventura County, Bernhard Oil Company is drilling at 156 ft. with Debbie No. 2 test on Sec. 4-1n-20w. Coast Supply Company has rig up for its No. 1 at Sespe on Sec. 32-5n-19w.

Oxnard in Ventura County has come into the spotlight by Oceanic Oil Company's announcement that it was planning to begin immediately a 5000-ft. test well there. The company has gathered some 4300 acres in the area, which includes 500 acres assigned by Union Oil to the Oceanic play. Other property holders in the area generally include Pacific Western and Hancock Oil. Camay Drilling Company has the contract for the well, which will drill 1300 ft. south and 660 ft. west from the northeast corner of the John R. Petit property. Drill site is in projected Sec. 22-1n-22w, about two miles south of the town of Oxnard and one and one-half miles northeast of Port Hueneme. In the Oxnard field proper, Oxnard Oil & Refining Company's Todd No. 3 on Sec. 6-1n-21w is digging at 3605 ft.

Bonita Huntington Oil Company's Well No. 1 in the Huntington Beach Field. (L. to R.): Frank King, head well puller; Bill King, floorman; Don Fairbanks, pumper; LeRoy Owens, derrick; Mark Forrester, floorman.

Reyes Peak Test Digging

Atop rugged Reyes Peak in Ventura County, Standard Oil of California continues to drill ahead with its interesting wildcat well on Sec. 11-6n-23w. Known as Hattie Russell No. 1, the venture if successful will open a wide expanse of virgin territory to new development. The area under questioning is one of the most primitive in the country and Standard found it necessary to overcome many natural problems before embarking upon its present expedition there for new petroleum. In the Ventura Avenue field, Lloyd Corporation's W. S. No. 1 on Sec. 20-3n-22w is digging at 12,100 ft.

Bardsdale Try Spuds

Spudded and drilling on down is the Hellman-Bardsdale No. 1 test on Sec. 7-3n-19w in the Bardsdale area, Ventura County. In the Santa Paula area, Huber & McGinnis is digging at 400 ft. with Anlauf-Betty No. 1 on Sec. 21-4b-21w. The project evidently has had some circulation trouble.

Los Lobos Pool Open

On ground southwest of Los Lobos in Monterey County, Jergins Oil Company appears to have opened a new pool. It was accomplished through the medium of Aurignac No. 1 on Sec. 9-23s-10e. The company went back into a hole which had gone to 4341 ft. and plugged to 2565 ft. The hole was then cleaned out to 3480 ft. and 7-in. casing set up at that level. At press time the company was attempting completion in the interval of 3480-3510 ft., following further cleanout operations to 3510 ft. Anticipated is a well putting out 14 gravity oil for a new discovery in the area.

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1. A complete line of proved TRET-O-LITE dehydrating reagents, designed to correct your emulsion problems, economically.

2. The effective KONTOL Corrosion Inhibitors, in both liquid and stick form, designed to prevent the corrosion of sub-surface and other production equipment.

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Paso Robles Wildcat Bores

No great distance from the city of Paso Robles an interesting wildcat flying the banner of Sunray Oil Company and E. A. Parkford of Beverly Hills is drilling toward a conclusive level. The well, Klever No. 1 on Sec. 23-27s-12e in San Luis Obispo County, was last reported slugging away at 2205 ft.

Zaca Field Drill Scene

Tide Water Associated is continuing its development program in the Zaca field, Santa Barbara County. The company's Davis No. 56 is drilling at 2400 ft. on Sec. 34-8n-31w. Chamberlin No. 33 on the section is down 4672 ft. and reaming.

Princeton Test Works

At Princeton in Colusa County, Honolulu Oil's wildcat called Honolulu-Humble-Terhel Farms No. 1 is making hole steadily ahead at 1150 ft on Sec. 35-18n-1w. In the Tompkins Hill area of Humboldt County, Texas Company's Holmes-Eureka No. 5 on Sec. 23-3n-1w is a location.

Monterey County Property Acquired

Monterey County activities gained added inerest when Texas Company recently blocked up considerable acreage northeast of the Rosenberg sector at San Ardo. The play is the Pancho Rico Creek area, where the company's Lanigan No. 1 test on Sec. 23-22s-10e is in the starting stage. There are no less than seven jobs currently programmed in the proved portion of the San Ardo field.

Napa County Wildcat Works

Prospect drilling has reached 5300 ft. in Western Gulf's F. G. Johnson No. 1 explorer on Sec. 28-8n-3w at Steele Canyon, Napa County. At Los Gatos in Santa Clara County, Frank S. Fabry and L. C. Bowles are rigging up Idylwild No. 1-A wildcat on Sec. 5-9s-1w. Northwest of Petaluma, Santa Rosa Exploration Company's Stephens - Rohnert No. 1 test is digging deeper at 5400 ft. on Sec. 26-6n-8w, Sonoma County. At South Dome, Tehama County, Buttes Oil Fields, Inc. has cemented 7-in. casing on bottom at 1640 ft. in its Corning Comm. No. 8-A on Sec. 31-24n-2w.

R. Barney Barnhill Named Sales Representative

R. Barney Barnhill has been named Sales Representative for Wichita Falls Foundry and Machine Works, Inc. While he will maintain headquarters in Houston, Barnhill will cover the entire oil producing areas in the United States.

The Wichita Falls Foundry and Machine Works manufactures catheads, air-tube clutches, Rotor Seals, quick release valves, V-belt pulleys, air compression clutches and water pumps.

Barnhill was with Mission Supply Co., serving the Mid-Continent area for 10 years and was sales manager for Hinderliter Tool company of Tulsa.

Locomotive Aid Refinery

Railroad locomotives are playing a unique role in the production of military aviation gasoline at Sun Oil Company's refinery at Marcus Hook, Pa.

Pressed into service because of a serious delay in the delivery of large new boiler equipment, a dozen engines on railroad sidings inside the refinery are helping to provide the steam requirements of the aviation gasoline plants.

Use of the locomotives as "mobile boiler houses" has permitted Sun to meet in full its aviation fuel commitments to the Armed Forces. Sun is making large quantities of this fuel for the military.

Steam from the locomotives passes through manifolds to lines connected with the refinery's main steam system, supplementing the supply from existing sources. The operation continues day and night.

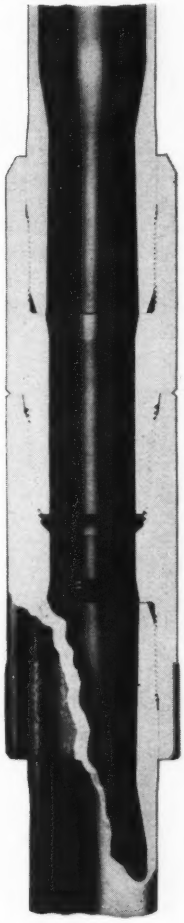
According to Senator Kerr, Democrat of Oklahoma, civilian production is expected to climb back to normal by 1953. He added "in the final analysis that is the only sure cure for inflation."

REED
Super Shrink-Grip
TOOL JOINTS

"We're setting footage records with REED *Super Shrink-Grip Tool Joints"*

...says Pete Hall, Superintendent for the C. E. Brehm Drilling Company of Mt. Vernon, Illinois.

"We just replaced a string of 4½" **REED** Full Hole Super Shrink-Grip Tool Joints that made 64,000 feet of hole. When you consider that the average life of a string of tool joints in the Illinois Basin is only 35,000 feet, you get an idea of the savings we made."



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TOOL JOINTS
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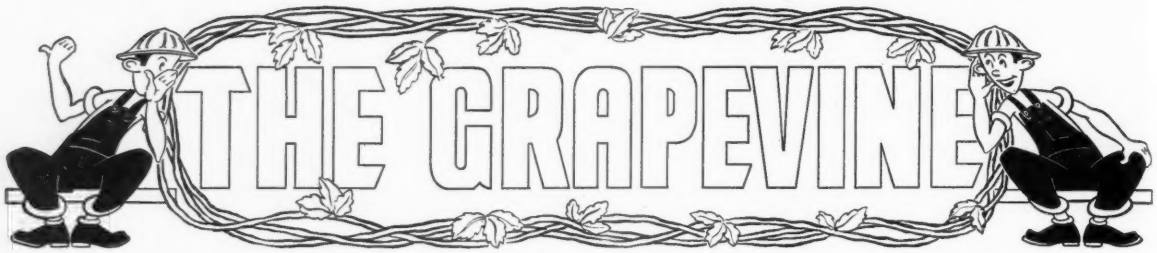


To the Nomads meeting on the second Wednesday of March and there spent about as interesting an evening as we have known in a long time, not only meeting a host of very nice oil people from the local derrick groves and a considerable delegation from foreign parts,but at the same time listening to a small coterie of world greats in the sports field that really thrilled us all to pieces. We arrived a bit early for the main fracas and enjoyed a perfectly lovely pre-festival **tête a tête** with Joe Bergeron and Lee Laird, a consequential Baash-Ross duo with which we have long maintained ideal relations. We got quite a bang out of Joe's recitation of the trials and tribulations of Ole and Svenska, a Swedish couple with which he seems to be rather intimately acquainted. We were joined in this bit of light revelry by Bob Eiche, the export magnate and man about the world, who was at the moment just barely holding off an attack of flu. In this we hope he was finally successful and is now pursuing the even tenor of his way unmolested by pesky microbes.

In due course we moved upstairs to the Marine Room and immediately ran into the usual sizable concourse of equipment and supply delegates, milling around and mingling in a commendable exhibition of good fellowship. There was M. O. Johnston's Bill Bettis, one of Nomads' founders and a very capable individual in all respects. Bill can draw the plans for a 20-room house, can a mess of albacore, or organize a Boy Scout jamboree, on top of his already substantial business responsibilities, without even ruffling a feather. Accompanying him was John Flanagan, also a member of the Johnston contingent, and one of the finest boys in the business. John is a fine appearing chap, always gracious, friendly, and an ideal host to the visitors from foreign fields as well as a fine companion for his home buddies. We also glimpsed Dick Winder and Joe Schlarb, from Chiksan, a couple of top notchers who are doing a good job of ingratiating themselves in the affections of the petroleum people.

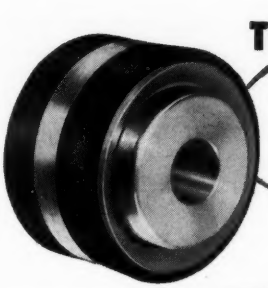
We had a chat with Hans Ross, the good natured Baash-Ross executive, one of the best known and best loved people in the California petroleum industry. Hans is a regular attender at oil men's functions here and there and he never has to look very far to find a flock of friends. We don't very often see Pop Atkins now-a-days but he was there as large as life and looking very chipper. Pop used to be a meanie with a mashie but we don't know whether he still flails the sod or has given it up for television, like one lad we could mention but wouldn't for worlds. Also hovering about was Ole Olsen, the Failing representative, a companionable sort of a guy, and lurking behind a substantial stogie we discovered Lavon Ratliff, the Mid-Continent Supply Company chap very intent on Bill Sargent's parade of stars. Leo Thiesen, who stars in the Falcon series occupied a set across the way from us and looked as if he were still enjoying life despite the high taxation. Then there were the Van Loozens, father and son, delegates from Ideco and Web Wilson respectively, and a pair of rare mixers, capable of giving a good account of themselves anywhere and in any society.

Jack Smith was as usual unobtrusively present. Jack is really the Gulliver of the equipment and supply business and is a self-effacing sort of chap who goes about his business quietly, but when the occasion arises does a bangup job either as a platform orator or just as a conversationalist. He represents International Cementers and we would just like to know how he and Henry Pullman, Baker Oil Tool's rambling representative would compare in miles traveled over the past ten years. As a matter of fact, Nomads ought to have every member report travels to and from foreign fields. A compilation of such data, both for the individuals and for the organization would be interesting publicity material, indeed. Returning to the main theme, however, we spotted Paul Bowen, the fishing tool lad, near the tailend of the evening. Paul was all decked out in summer regalia, brown as a hickory nut and looking as if he had just stepped out of a sand trap.

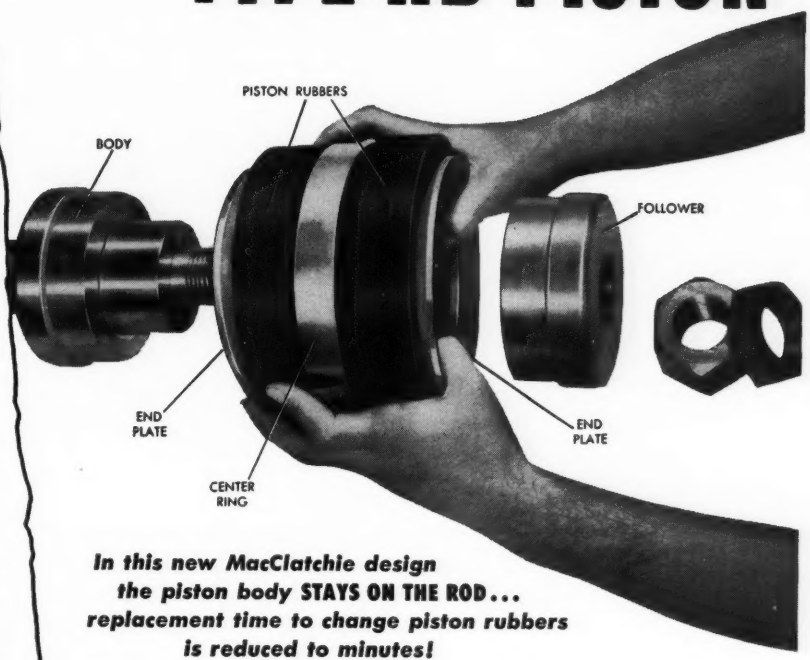
We exchanged greetings with Ernie Fowks, the Emsconian, past president of Nomads and one of its most consistently active members over the years. Then there was that beaming galvanizer and all-around good joe, Ted Forsythe, trading reminiscences with Bus Hayes, an old buddy. Always get a pickup out of meeting B. Reinhold, the other half of Abegg & Reinhold, one of nature's gentlemen and as genuine as they come. Lou Bronzan, the perennially youthful looking Baash-Ross executive, thoroughly enjoyed the yarns of Hampton Poole and the others. We could see him laughing unrestrainedly. Lou has been selected by a lot of petroleum prognosticators as the man most likely to succeed. That's the way they always work—picking out a man who is already successful as one bound to succeed. Herm Paschall, the ebullient lad from the H. C. Smith Oil Tool Company also appeared to be enjoying the show no end, and so did Leopoldo Ruiz, the Pemex executive to whom we were introduced by Tom Martin.

Tom is Bob Eiche's closest associate and another chap who does an excellent job of hosting visitors from foreign parts. So also is Verne "Mitch" Mitchell, the Securaloy hotshot with whom it is always a plea-

Here's the First Important Pump Piston Development in Years!



THE NEW MacCLATCHIE TYPE HD PISTON



In this new MacClatchie design the piston body STAYS ON THE ROD... replacement time to change piston rubbers is reduced to minutes!

With this new MacClatchie Type HD Piston there's no need to remove the piston rod from the crosshead end of the pump, disassemble the entire piston and replace with a new one. *The body stays on the rod*—you simply remove and replace piston rubbers, saving hours on pump down time.

And that's not all! End plates and center ring, plus the wear-free body and follower, can be used over and over again for additional savings. The *same* body and follower are used for 6" sizes and up, another for smaller sizes—you change only the rubbers as long as liner size remains the same!

To these money-saving features add piston rubbers of new composition and new construction – with exceptional wearing qualities – the answer to economical piston replacement in your pumps.

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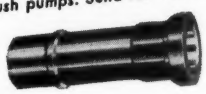
A New High-Pressure Valve by MacClatchie

New design... new performance ...new savings... are engineered into this Type HP Valve. Larger diameter cap insures positive fluid seal. Improved body design provides more striking surface against the seat. Special oil and heat resisting insert provides a perfect fluid seal against top of valve seat and at taper of seat. Available for all sizes and makes of slush pumps. Send for folder.



MacClatchie Slush Pump Liners and Piston Rods

MacClatchie Pump Liners are made of selected alloy steel, carburized, hardened, and precision honed to a mirror finish. Outside diameters are machined for perfect fit, and provided with centering ring on reduced sizes. Rigidly inspected and tested to insure against washing out. Made in all sizes for all pumps.

Super-hard MacClatchie Piston Rods are made in all tapers for all sizes and makes of slush pumps.

Standardize on MacClatchie!

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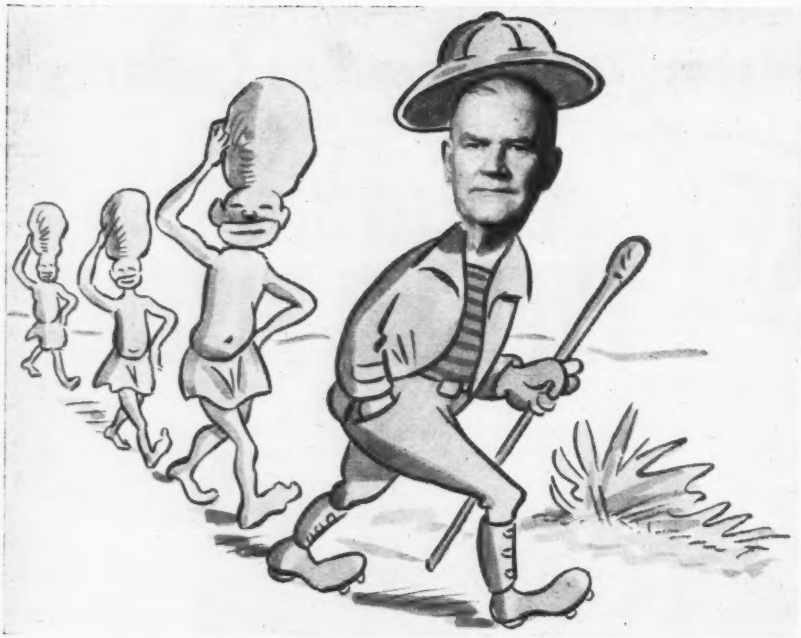

GLOBE CIRCLER AND LINGUIST

David Lawrence Rairden, sales representative of Wickwire Spencer Division of The Colorado Fuel and Iron Corp., was born in Batavia, Java, where his father was United States Consul, and whence, according to certain pictures we have surreptitiously glimpsed, come some of the world's most intriguingly constructed young ladies. Dave, as he answers to his friends, worked in sales for Dunlop Rubber Company and Firestone Tires down in the South Pacific from 1914 to 1934, with occasional bits of time out for other business and personal interests. In 1935 he came to the United States with the intention of settling down and forthwith attaching himself to Wickwire, began selling wire rope in the eastern end of the country. Later he tackled the Mid West, and, finally, like all people of good taste, struck out for California. That was in 1946, after the merger of Wickwire with Colorado Fuel & Iron Corporation, and he still remains a firm adherent of the Wickwire institution and all its policies. Besides having the good fortune to have been born on the very lovely island of Java and to have foraged widely among the remote islands of the South Pacific, Dave has circled the globe three times in his extensive travels. He is a fluent linguist and handles five languages as casually as Joe DiMaggio handles a pop fly. He served in the United States Air Corps during the first and second world wars and on both occasions saw plenty of action. All that is over, however, and he is now comfortably settled down with Mrs. Rairden in a neat Santa Monica villa where, when his daily stint for Wickwire is completed, they both derive much enjoyment from cultivating the soil and matching what comes up against what the seed package said would come up.

sure to consort. Mitch has a terrific acquaintance among the foreign legion, it doesn't seem to matter whence they come. At these meetings they come at him from all directions, slapping him on the back and loudly proclaiming the call of the petrolic people—"Well, you old such and such!" Also, rarely absent is that distinguished looking chap with the becoming white thatch, Frank Gilstrap, a friendly, sincere individual who exportwise represents 5 companies and disseminates a lot of good will in the process. In evidence, too, was George Flanders, the affable representative of Lane-Wells Company, and another hard worker for Nomads. Also, Earl Daniels, the Hydril higher-up who is everywhere and whose exercises as a barbecuist have met with the approval of the petroleum industry's most pernickety epicures.

Jack Ballagh, the west's greatest plastic extruder and an ex-prexy of Nomads, flitted about saying hello to a host of friends; and his old standby, Earl Rees, was on deck, too. Earl is another gentlemanly individual whom we have always much admired. Noted across the room was Dante Siracusa, the Bowen Fishing Tool chap with the Barrymore profile. Dante has the physical makeup of an actor and we will bet that five out of four people at first attempt would guess him to be that. Earle Boggess, ex-president of the chapter and Baker Oil Tools Company export representative, graced the head table. We always remember Earle as one of the better "Brasso" players on the last Nomads' train to the Tulsa Oil Show. Then, of course, there was that delectable soul, Wally Sawdon who has been a workhorse for Nomads since it was organized, and always carries mentholated cigarettes in one side of his case for those who wish to improve their menthol attitude. It seems a hundred years since Wally first came up to Union Oil Company to consult with us on sundry matters of moment and he hasn't changed a bit since that time. Thoroughly honest and decent in every way, Wally is a real credit to his profession and, in fact, to the oil industry.

We had a cheery wave from Ken Wright, the tall W of B & W whom we have just come to know since he joined Bruce Barkis in business, and have learned to regard highly. We used to sit with Bruce some years ago in divers conferences on industrial relations which included J. P. "John" Rockfellow, Union Oil Company's personnel manager, back in the days when we were interested in maximum working hours and minimum wages. Also had a short exchange of harmless gossip with Roland Smith, the handsome exporter, who might have made himself a fortune modeling men's clothes; and his right arm, Knight Templeton, whose divots are strewn over every golf course in California. Knight is the scion of a famous family and is himself pretty swell people. Towering above the herd we noted none other than big Fritz Ripley our erstwhile tile tossing partner and a laborer in the Ideco vineyard, also a past president of the chapter and past national chairman of the Board of Regents.

Two chairs down from us sat Leo Cypher of the Cypher enterprises, a resourceful chap who has more inventions to his credit than Tom Edison and is not a bit proud. Then there was a grist of people from foreign fields, notably, a recent Drillex contingent from Argentina, including Harry Bartlett who is about to go to Peru for Dunlap & Graham; Fred Gholson, a Brea boy who made good in far off places; T. D. Bill Parnell, a good friend of Death Valley Scotty; Leon Duane, just back from Agentina and preparing to leave for Brazil; W. H. "Buck"

Big Boats net the Big Hauls

Petroleum Progress Serves One of America's Oldest Industries

Big hauls don't come in small boats. And the big hauls are not within rowing distance! Commercial fishing is big business. It demands rugged, fully-powered boats that can search the seas—go where the fish are—take aboard huge catches—bring them back to shore, fast!

Fish must be found, caught and brought to market quickly—to be cut into fillets, quick-frozen, smoked or canned. Petroleum fuels and lubricants have helped to bring this operating efficiency to the fishing industry.

SUPPLYING sufficient food for America and the world outstripped the capacity of individual manpower. Again petroleum contributed to a vital need—stepping up productivity with motor power. Today reaping huge crops on land and at sea has become highly mechanized. As a farmer ploughs his land and reaps his harvest—so does a modern, power vessel plough the sea, probe the ocean floor, net its catch.

In every U. S. coastal area Texaco supplies these sturdy fishing boats with fuels and lubricants.

Here is one more example of petroleum research and development serving industry—making it possible to supply a vital commodity in enormous quantities, for essential food, for commercial uses.

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Petroleum Promotes Progress

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Johnston Stainless Welding Rods

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May, ex-big league pitcher who will go to Venezuela for Santa Fe Drilling Company; W. J. "Jack" Chancellor, the Kentucky colonel, a Drillex mechanic who will shortly go to Iran. Then there were Loyd Marolf, just returned from a Drillex assignment in Turkey and about to start out for Ethiopia; W. B. "Bus" Hayes, from Talara, Peru, where he is drilling superintendent for International Petroleum Company; W. P. "Bill" Ries, back last August from the Philippines, now settled down locally for a spell; and Leopoldo Ruiz, Pemex engineer, here making arrangements with Tom Pike for the drilling venture in Baja.

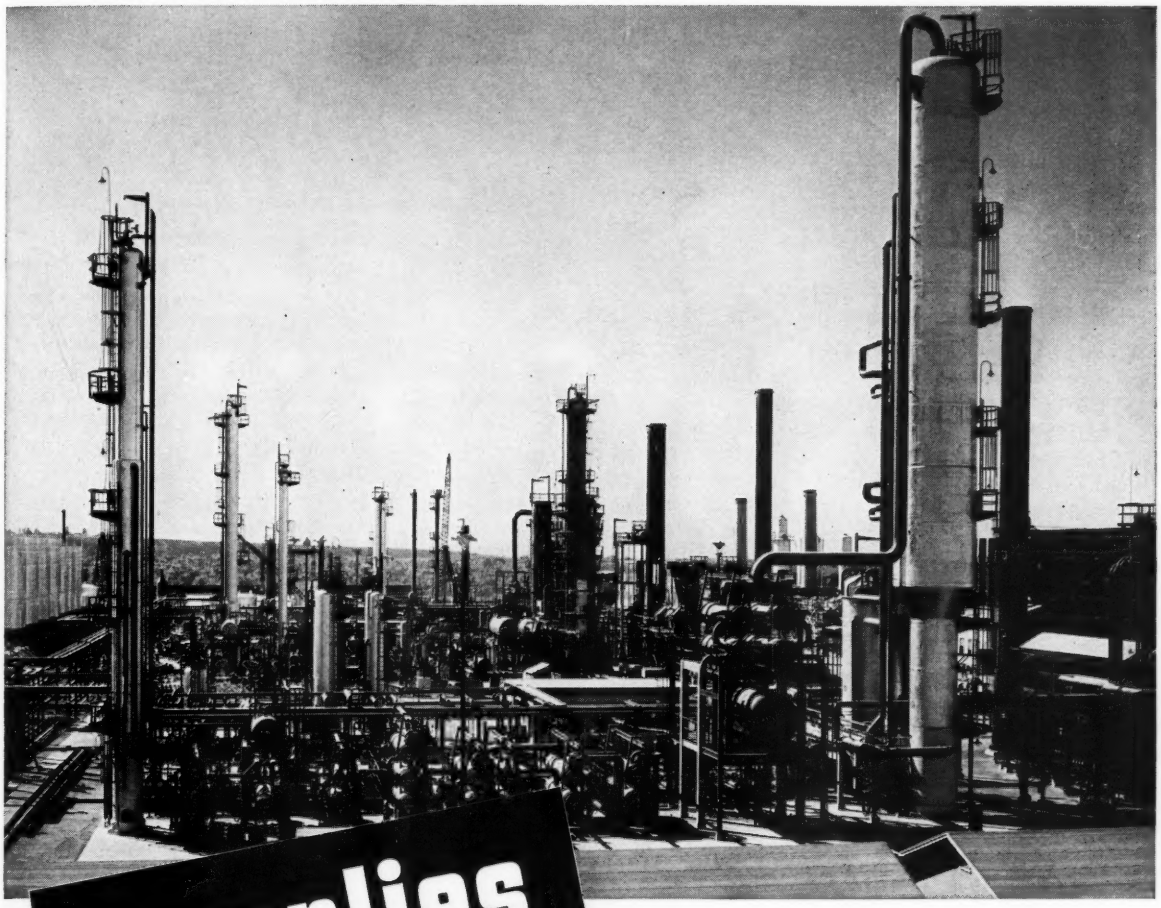
Right from the start, this was one of the top Nomad parties of all time. Jerry Engstrand, the personable prexy who, incidentally, is now vice president of the Jonathan Club, assigned Bill Sargent the job of digging up a program. This the famous expositor of wham did in no uncertain manner. Bill is a right good performer himself but he brought out a genuinely thrilling array of top figures in sports that the boys went for in a big way. Topping the list was Mickey Walker, the "Toy Bulldog," holder at various times of the welterweight, middleweight and light heavyweight b xing championships of the world, now retired and devoting his time successfully to art. Mickey is a grand guy and although he apologized for his lack of familiarity with the intricacies of grammar, he did an elegant job of enlisting a whole houseful of new friends with his completely honest, interesting, and altogether elevating presentation. The story of his several encounters, in and out of the ring, with Harry Grebb was a classic that would make fine reading in any sports column.

Next on the program was Hal Berger who broadcasts sports events practically 24 hours a day into the remote corners of the world for the boys in the armed forces and gave evidence of being thoroughly acquainted with his business. He also did a top job of reminiscing about great ball games and ball players, and seasoned his offering with some well chosen and neatly placed stories. Hal got a royal reception, too. Then came little Fidel La Barba, retired flyweight champion boxer of the world, in a dramatic account of two of his most dramatic fights, one against a virtual unknown, Johnny Vacca, and the other against the great Bud Taylor. There just wasn't a whisper in the house during his recital. It was a great piece of narrating by a great little guy and the Nomads loved it—and him, too. There is something about these chaps, as Bill Sargent said, that really makes the old ripples run up and down your spine.

After Fidel came Hampton Poole, assistant coach of the Los Angeles Rams, who pulled the prize wisecrack of the evening following a highly eulogistic introduction by Bill Sargent. "After that introduction," he said, "I can hardly wait to hear what I have to say." Thereafter, he went on to expound on the top professional football players and what it takes to keep them in shape. His stories literally rocked the boys and he turned out to be a most entertaining speaker. Last but far from least on the program was Al Santoro, sports editor of the Los Angeles Examiner, and a popular figure in western sports circles. Al gave an amusing idea of what the sports editor is up against in his job, and cited the adventures and background of many famous figures in the newspaper world, particularly those with whom he personally had been acquainted. He also told of his own futile efforts to break the parimutuel trust. All of which was thoroughly enjoyed. Indeed, Jerry Engstand and Bill Sargent can take a bow for staging one of the best Nomad meetings we have ever attended.

In the personal goings-on of the Rocky Mt. region, it was noted that Governor John W. Bonner of Montana appointed LaRue Smith, Jr., of Great Falls a member of the Oil Conservation Board to serve until Jan. 8, 1952. He replaces Jack C. Toole of Shelby, who resigned under stress of other duties.

Gulf Oil is expanding Rocky mountain operations, with a larger staff at Casper and a new office at Billings. New offices will be located at Salt Lake City and Durango.



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Hundreds of essential supply items used by the oil-refining and chemical industries can be had from one convenient source—Bethlehem Supply Company of California.

Whether you are concerned with new construction, rebuilding or maintenance, we can fill your supply requirements without delay. Our field stores and warehouses carry many items for immediate needs. For large construction projects we can arrange direct factory shipments to contractors and refiners. Write or call for full information.

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Relief Valves, Safety Valves, Pressure Gauges and Whistles by *J. E. Lonergan Company.*

Reflex and Transparent Gauges by *Penberthy Injector Co.*

Cast Steel Valves, Iron Body Valves, Bronze Valves, Lubricated Plug Valves; Cast Steel Fittings, Cast Iron Fittings, Bronze Fittings by *Walworth Company.*

Sheet Packing, Asbestos Ring Gaskets, API Ring Gaskets by *Johns-Manville Corporation.*

Seamless Line Pipe, Condenser Tubes, Carbon Steel Still Tubes, Alloy Steel Still Tubes by *National Tube Company.*

Waukesha Engines by *Waukesha Motor Company.*

Forged Steel Gate Valves by *Worcester Forged Steel Valve Co.*

Bethlehem Supply Company *of* California

Personalities IN THE NEWS

Garlock Honors Employees

Mr. C. W. Harmon, District Manager of The Garlock Packing Company recently honored his staff by entertaining at a dinner party. The occasion was held primarily to present 25-year buttons in addition to gifts from the staff to Mrs. Margaret Roush and Mr. Ross J. Young.

Congratulations are not alone in order for the two recipients of the 25-year buttons, but to the Company and its management because of the fact that 203 years of service for the company were represented by the small group attending the dinner, the lowest number of years of service being three years and the longest 48 years. There were six individuals in the group that have seen better than 15 years service with the company, namely, Mr. W. J. Leach, 48 years; Mr. C. W. Harmon, 35 years; Mr. E. S. Walker, 31 years; Mrs. Margaret Roush, 25 years; Mr. R. J. Young, 25 years; and Mr. L. E. Draeger, 16 years. In the junior group, Mr. James Hulme, 6 years; Mr. Hal I. Moore, 5 years; Miss Connie Regalado, 3 years; Miss Dorothy Williams, 3 years; Mrs. Heidi Kasten, 3 years; and Mr. Alex Calzada, 3 years.

Thomas McElheny, San Joaquin Valley superintendent, International Cementers, Inc., spoke about lightweight cement aggregates and jet cements at the meeting March 20 of the Los Angeles Basin chapter of the AOPI. F. M. Carlisle and Don Hall also commented on the subject at the meeting, which was held in Shell Recreation Hall, Signal Hill.

William H. Corey, research geologist for Continental Oil Company at Los Angeles, opened the 47th annual meeting of the Geological Society of America at the University of Southern California, March 23. He talked on "Southern California Coastal Paleography." He has conducted a 26-year study of the geography of ancient California, important to petroleum geologists in offshore search for new oil. Dr. Duncan A. McNaughton, assistant professor of geology at SC, reported publicly for the first time on his research on so-called basement oil pools, work he accomplished for Western Gulf Oil Company. Dr. Richard H. Jones and William P. Irwin, Caltech professors, reported on their oil exploration in Tick Canyon in Southern California. Dr. Daniel I. Axelrod, associate professor UCLA, discussed the development of flowering plants millions of years ago. Burdette A. Ogle, lecturer at the University of California, will relate his geology research for oil in Humboldt County. The SC geology department was host to the convention with Dr. William H. Easton, associate professor as general chairman.

Max Steineke, geologist for Arabian American Oil Company of San Francisco, has been designated recipient of the Sidney Powers Memorial Medal of the American Association of Petroleum Geologists. C. L. Moody, president of the group, said the award signifies the highest honor in the science of petroleum geology. The award will be made at the 36 annual meeting of AAPG in St. Louis April 24.

Lawrence (Chuck) King, general division engineering department, Signal Oil Company at Los Angeles, has joined the Army and is undergoing basic training with the 38th Armored Division at Camp Roberts, Calif.

G. A. Olsen, president of Sunland Refining Corporation at Fresno, has been elected a member of the board of directors of the National Lubricating Grease Institute.

Sidney D. Waterman, tool dresser for the production department of General Petroleum Corporation, died recently at his home near Santa Fe Springs.

Pictured above is the staff of the District Office of Garlock Packing Company attending the dinner given by Mr. Harmon, District Manager:
Front row—Left to right: W. J. Leach, Mrs. Margaret Baker, Mrs. Margaret Roush, Ross J. Young, Miss Connie Regalado, L. E. Draeger, James Hulme.
Back row—Left to right: Alex Calzada, E. S. Walker, C. W. Harmon, Mrs. Heidi Kasten, Hal I. Moore, Miss Dorothy Williams.

Gareld K. Shick, Texas pipeline division chief clerk for Southern Counties Gas Company, has been transferred to the San Gabriel division, where he has the title of staff assistant, operating department.

Dr. D. F. Hewett, U. S. Geological Survey, spoke before the Geological Society of UCLA in the campus chemistry building at Westwood. He discussed the bastnasite deposits of the Mountain Pass region of California.

Olin Bell, Houston, was elected chairman at the annual meeting of the southwestern district of the American Petroleum Institute's division of production. At the meeting, which was held at Beaumont, Tex., Shreveport, La., was tentatively picked for the 1952 convention. Bell is director of production geology for the Gulf Coast division of Humble Oil & Refining Company.

Herbert H. Klepfer has joined the Sunray Oil staff in the production department at Santa Maria, replacing Wallace Carlson, resigned. The company also added a new member to its refinery staff at Santa Maria. It is R. W. T. (Dick) Chadband, who received his education in the Santa Barbara County city. Jack Allan Crane, Sunray pumper in the Coalinga production department, has joined the Army. His father, Merle E. Crane, Sr., and a brother, Merle E. Crane, Jr., are both with the Company in California.

William G. Helis, Greek immigrant, who built up at least two fortunes in the oil industry, will be buried at New Orleans in Greek soil. The son of the millionaire, who passed away last July, said that two tons of soil has been sent to the Louisiana city from a number of Greek communities. The soil will be placed in the mausoleum being constructed for Helis, who gave millions to aid his homeland.

Joseph Di Giorgio, multi-millionaire oil landowner and fruit grower, who died February 25, left an estate unofficially valued between $10,000,000 and $40,000,000. His holdings were chiefly in Kern County.

Swain Opens Advertising Agency in Whittier

L. J. Swain, formerly with the Los Angeles agency of Martin R. Klitten Co, Inc., has announced the opening of his own Advertising Agency in Whittier, California, on March First.

L. J. Swain

Swain has been identified with advertising in Southern California for over twelve years. He was first employed by Dozier-Graham-Eastman, Los Angeles, as a copywriter, working on oil tool and other industrial advertising accounts. He later acted in the capacity of copywriter-accountant executive for the same firm. In 1947 he joined the Lester C. Nielson Co., Huntington Park, also in the capacity of account executive.

For the past two and a half years, Swain has been with the Klitten agency as account executive, handling a number of accounts in the Los Angeles area.

The new firm will be known as L. J. Swain, Advertising, with present offices located at 112 North Bright Avenue, Whittier, California.

Howard T. Anderson, petroleum geologist with Standard of California, addressed the Los Angeles Dana Mineral Club on "Micropaleontology in Oil Exploration." He illustrated the lecture with microscopic slides of organisms which aid geologists in determining presence of petroleum.

Ventura Organizes Chapter Of D. & D. Club

A chapter of the Desk and Derrick Club has been organized in Ventura for the expressed purpose of bringing together women in the oil industry. The club is being founded in response to a growing desire by women in this business, not only for educational programs, but also to bring the women together in friendly gatherings.

Membership will be extended to all women engaged in the petroleum industry and allied fields who will strive toward a better working knowledge in which they play a part, no matter how small. With the assistance of authorities in the various fields it is hoped to bring enrichment of knowledge of this fascinating business to all engaged. Plans are laid to contact each girl personally but if a few are missed please note it is not intentional. A welcome is extended to all and it is hoped all will attend. The Desk and Derrick Club is patterned along the lines of the very successful organization in Los Angeles.

The first meeting, a "Get Acquainted Dinner," is scheduled for Tuesday, April 10th at 6:30 P.M. at the American Legion Building. Guest speaker on the subject of early days in the industry will be Mr. J. R. Pemberton, well known petroleum geologist and consultant. Reservations may be made by contacting Della Guggenmos, reservation chairman, at Schlumberger Well Surveying Corporation, Ventura, before April 5th.

Passengers sailing from Los Angeles Harbor on the new and finest ship of the Norwegian merchant fleet, the "Nerva," included Torrey Webb, vice president of Texas Company. His first stop will be Anaconda Copper Mines at Chuquicamata. The next stop on the itinerary is Santiago, Chile, thence to Chilian Lakes by way of Buenos Aires. During his stay in the Argentine he will be the guest of Alberto Dodero, the famed South American ship magnate. The oil executive was accompanied on the tour by Mrs. Webb.

With Drilling Contractors

"The Gullible Gull" is the title of an advertisement created by the Barnett National Bank of Jacksonville, Fla. Timely and interesting, the ad is presented in the current issue of "Roughneck Talk," published by the Rocky Mountain Drilling Company at Los Angeles, as follows:

"In our friendly neighbor city, St. Augustine, great flocks of sea gulls are starving amid plenty. Fishing is still good, but the gulls don't know how to fish. For generations they have depended upon the shrimp fleets to toss them scraps from their nets. Now the fleet has moved to Key West.

"The shrimpers had created a welfare state for the sea gulls. The big birds never bothered to learn how to fish for themselves and they never taught their children to fish. Instead they lead their little ones to the shrimp nets.

"Now the sea gulls, the fine free birds that almost symbolize liberty itself, are starving to death because they gave in to the something for nothing lure. They sacrificed their independence for a handout.

"A lot of people are like that too. They see nothing wrong in picking delectable scraps from the tax nets of the U. S. Government's 'shrimp fleet.' But what will happen when the Government runs out of goods? What about our children of generations to come?

"Let's not be gullible gulls. We Americans must reserve our talents of self-sufficiency, our genius for creating things for ourselves, our sense of thrift and our love of independence."

Brown Drilling Company of Long Beach has drawn tentative plans to enter the oil development picture in the Colorado and Nebraska areas. To speed up the program, Gene Dawson has been transferred to Denver, where he will supervise operations in the area. Dawson recently completed a tour through Kansas, Oklahoma, Wyoming, Colorado and Nebraska. He was investigating areas of possible interest to the company.

The first shipload of road grading equipment and camp facilities has been landed by Pike Drilling at San Ignacio Lagoon, Mexico. Company superintendent Bill Klassen is supervising the building of roads to the drilling site in preparation for the 10,000-ft. Diesel rig which Pike shipped by barge on March 15. The well will be drilled on contract for Petroleos Mexicanos by Pike Drilling Company de Mexico, a wholly owned subsidiary of Thomas P. Pike Drilling Company of Los Angeles. Location is some 600 miles south of the boarder and several miles inland from the ocean in barren terrain where the contractor must build roads to transport equipment from the Lagoon. In the state of Tamaulipas, Pike Drilling is drilling a second well in the area for Edwin W. Pauley. It is now digging below 3500 ft., after setting surface pipe at 750 ft. Pike is drilling a series of wells in the area under Pauley's agreement with Petroleos Mexicanos.

J. H. (Jim) Harris, San Joaquin Drilling Company at Los Angeles, has returned from a vacation trip, which among other points took him to Fort Worth and Denver.

A priority program to allow the drilling of 43,400 oil and gas wells has been established by the National Production Authority. The NPA estimated that the program for the oil and gas industries will channel 157,0000 tons of drill pipe, steel casing, and tubing products to operators each month, beginning in April. In view of the action of the Federal agency in Washington, drilling contractors are likely to keep busy during the year current. The agency remarked that wells must be drilled to open new supplies of oil and gas to provide petroleum products needed for defense and essential civilian requirements.

Brown Drilling Company in recent weeks has lost two of its members. An automobile accident cost the life of J. P. Lynn, who had been with the company as a derrickman since October, 1948. Eldon Edward Sharp, died at his home in Bakersfield. Eldon, popularly known as "Arky" had been in failing health for a year. He joined Brown in 1943 as a driller and shortly thereafter was promoted to toolpusher.

Jayme Gonzalez, Elvin Meadow, Edwin Stovall and Ernest Thoeme of Brown Drilling have left California for company operations in the Middle East. Gonzalez and Thoeme are first timers for that part of the world. However, Meadow and Stovall can be considered veteran "ragheads" by now inasmuch as both have rounded out successfully two-year contracts for Brown before in that region.

F. W. Brigance, vice president and general manager of Rowan Drilling Company of Fort Worth, has been named chairman of the general arrangement committee for the 11th annual meeting of the American Association of Oilwell Drilling Contractors. The meeting will be held in Fort Worth, September 23-24. The appointment was made by A. W. Thompson, AAODC president, who announced that other meeting committees would soon be made known. Brigance has been active in association work as a director and as chairman of the Dallas-Fort Worth chapter during 1950.

Rocky Mountain NEWS

Colorado—Idaho—Montana—New Mexico—Utah—Wyoming—Western Canada

Ohio Oil Co. which started the Julesburg Basin boom rolling three years ago, tapped its fifth oil field in western Nebraska in March when the No. 1 William Sparks, seven miles north of Sidney, tested both oil and gas.

The venture between the Huntsman and Gurley fields gauged 3,665,000 cubic feet gas daily in the First Dakota sand at 4500 ft. Drilling deeper, it found the Second Dakota sand at 4567 and made 1060 ft of clean oil on a drillstem test.

It was the seventh oil pool found in western Nebraska, and is located in section 29-15n-49w on the original Ohio lease trend.

On the northeast Colorado side of the Basin, Eddie Fisher and C. E Stout, independent operators, recovered 450 feet of light green oil and 90 ft. of oil cut mud on a 60-minute drillstem test at their wildcat in the Messex area of Mortan county. The well found 14 ft. of saturation in the Dakota sand and is 14 miles southwest of the Merino field discovered last year by Trigood Oil Co. of Casper. Shell, Carter, Pioneer Oil Co. and others have holdings in the Messex area.

Locations for five new wildcats were staked in eastern Colorado in March. British-American, which made the recent discovery at Yenter, will try again in the Graylin area, south of Mount Hope field. Slick-Moorman and Saltmount have scheduled a test in the Padronia area southeast of Armstrong. Ryan Oil Co., so far unsuccessful in the Basin play, is trying again in the area northwest of Sterling.

Band Leader Orin Tucker will drill the No. 1 Peterson in the Southeast Lee Pool area of Morgan county. Tucker is interested in two other Colorado wildcats, one of which is testing oil shows in the Little Beaver Creek area of Adams county.

In Wyoming, the oil spotlight alternated between South Glenrock, the East Teapot area and the Big Horn Basin.

A major field is shaping up in South Glenrock, following the recent Shell Oil Co. strike which extended production two miles to the eastward. A rapid drilling program is under way in this new area between Glenrock and the Deer Creek range while north of the town, similar activity looms. Ralph Lowe, Texas independent, cored 34 feet of saturation in the Dakota sand at his second well in the area two miles southeast of production in Phillips' South Cole Creek field. It was an offset to a well which found only 10 feet of saturation in the Dakota sand. All acreage is leased solidly between South Cole Creek and Glenrock, with the expectation of finding new production on a long trend. Typical of the going prices on acreage was an offer made by a major of $50 an acre and a four per cent over-riding royalty for a half-section of fee land one mile east of Lowe's latest strike.

And in the highly faulted area immediately east of the old Big Muddy field, Southern Production and Joe Dyer brought in a 500 bbl. flowing well from the erratic Muddy sand. The next offset, however, found the Muddy sand shaled out but drilled deeper to hit pay in the Dakota sand. Sam Dyer, member of the firm, called the Muddy the "worry sand"—now you have it, now you don't.

General Petroleum has found its biggest prize in the Rocky mountains to date in the new Slick Creek field at the edge of Worland. After a series of disappointing producers at South Fork, Sand Creek and Frisby in Washakie county, the firm tapped the Embar lime for a 1200 bbl. a day discovery. A stepout a mile and a half east of the discovery looked even better, flowing the equivalent of nearly 1300 bbls. daily from the deep Embar pay zone between 10,395 - 10,553 feet. Significantly, it proved higher on structure.

Wildcatting on the rolling hills near Balboa, Shell Oil Company's Irvine 4-51-130 is one of the two rigs currently making hole on the Irvine Ranch.

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A third well one-half mile west of the discovery cut a good pay zone in the Embar, and all indications point to a field several miles in length, extending under the nearby county seat of Worland. It is doubtful, however, that drilling will invade the town limits. The oil carries a high hydrogen sulfide content and is accompanied by sour gas, which cannot be flared under Wyoming law. After proving up a sizable reserve, it is likely the firm will take steps for inducing a sulfur plant to process the gas.

If events were bullish in the Worland area they were bearish at Bonanza, further north in the Big Horn Basin, where Dr. Ziegler, the little Swiss geologist, surprised everyone by getting a 1500 bbl. well in the shallow Tensleep sand (2600-2700 ft.) on top of an unsuspected surface anticline. Bonanza, true to its name, boomed to the tune of $1,000 an acre and other considerations for the stuff close-in, but it gloomed up a few weeks later when Gulf, making one of its few ventures in the Rockies, hit the "ocean." Bonanza, it seems, is a razorback structure, falling off sharply at the sides. But drilling will continue closer to the discovery, and further north along the axis. Stanolind is drilling.

Most geologists and the leasing fraternity were agreed that Wyoming's Big Horn Basin, come alive with the revival of black oil markets, will be the most active oil patch in the Rockies in 1951—with the possible exception of the Julesburg Basin of western Nebraska and northeastern Colorado.

Slick Creek has started the search anew for those deep basin fields along the main axis running from Thermopolis to Cody, while the surprise pool at Bonanza has turned attention once more to some possibly overlooked surface structures which rim the margin of this arid region.

General Pete has announced plans for taking its third well at Slick Creek down to the Tensleep, which is anticipated below 11,000 feet. The Tensleep in the Worland field, 10 miles to the north, showed saturation but generally was too hard and tight to yield production. Conditions may differ at Slick Creek, where the Embar is porous and permeable enough to obviate the necessity of dumping in thousands of gallons of acid, as at Worland.

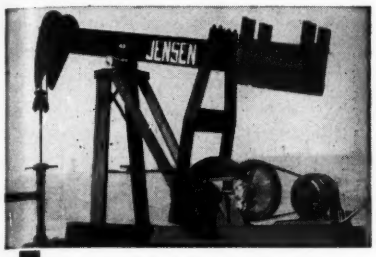
The rough and jumbled Sage Spring Creek field 30 miles north of Casper, which may be 10 miles in length, continues to be a puzzle to geologists. Poking around in the center, Amerada made the discovery two years ago—a small pumping well. Several other wells were nothing to get excited about. Stratigraphic, probably. Then Amerada jumped six miles north and found a fairly good producer in the Dakota sand—150 bbls. daily on the pump. Same field or another trap? Nobody was sure. The north edge of Amerada's unit bumped close to the borders of the once-notorious Teapot Dome naval reserve.

Remembering the terrible blizzard of '49, Amerada shut down operations for the winter. But Trigood and Brinkerhoff, notso-small independents, were losing no time. Somehow they wangled leases right up to the border of old Teapot, brought in some good flowing wells from the Dakota sand around 5600 ft., which was 2,000 feet higher than the first Sage Spring Creek wells. Amerada had to drill offsets. The winter, fortunately, proved to be the mildest in recent years.

Very little will be overlooked along the west side of the big Powder River Basin in 1951. Shell is drilling again way up north at Monarch, near the Montana line—an 11,000 ft. Ordovician effort. Stanolind has sacked up acreage of the old Billy Creek field in Johnson county, to pry into some folding along the east flanks of the Big Horn range. Continental is probing shallow Shannon and Wall Creek sands in the Los Nietos block north of the old Shannon pool in Salt Creek, getting a trace of gas cut mud in the first try. Three ventures will be drilled in rapid succession.

Continental is also drilling in the old Castle Creek field southwest of Salt Creek, figuring the present four small producing wells may not be on top of the structure—as indicated by a core drilling program last summer.

The big companies are pouring over the patchwork terrain south



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and west of Castle Creek for several townships puzzling over possibilities of folding, pinchouts, traps of all kinds. No longer does negative seismograph findings and absence of surface structures condemn an area entirely, they reason. Some rapid drilling can get the information about as cheaply as extended geophysical investigation.

The Wind River Basin is getting some close attention, although currently not in the spotlight. Atlantic is quetly unitizing a block of acreage in North Muskrat, Fremont county. Zach K. Brinkerhoff, Jr., of Casper announced plans for a 7,000 ft. test in North Alkali Creek north of Stanolind's Beaver Creek field and Northeast of Atlantic's Riverton Dome.

Brinkerhoff, with seven rigs busy in Alberta and three tied up in Texas, has only two left for Wyoming. Once primarily a drilling contractor, he is calling on other contractors for bids to keep up with the rapid wildcat program in Wyoming.

Production of crude oil reached an all-time record of 195,000 barrels daily in March and kept up the pace throughout the month. The API reported the state fifth in the nation in proved reserves, and second in the increase of reserves over the preceding year. The state produced 61 million barrels of crude oil last year, including approximately nine million bbls. for Montana refineries (which was more than total Montana production for the year).

Montana's conservation board reported daily average production for 1950 of 22,213 bbls., as compared to nearly 25,000 bbls. for 1949. Leasing and drilling activities are as numerous as ever in the Treasure State, with hopes pinned steadily on finding coral reefs in the Devonian similar to the Alberta production.

In North Dakota, leases that once could be had easily for 10 cents an acre were bringing one, two, three dollars and more—although the state wasn't in the oil column yet.

Hardy lease brokers donned parkas and fur mittens to comb holdings along the Canadian line, all because Amerada ran casing in its 11,000 ft. wildcat in the Williston Basin. While Amerada averred the venture was being tested thru casing only to evaluate the faintest of shows in what might be the Devonian lime—"any limestone gives up a fetid odor"—the lease hounds and their employers were taking no chances. While a tower left the Amerada rig in 35-below zero weather, the brokers were out knocking on farmers' doors with forms in hand and pens in pocket. Just 65 miles north of the international boundary, in Manitoba, a wildcat found oil—the first oil in that province. It wasn't commercial, but it made the Williston Basin look like maybe another Alberta. Remember, Imperial drilled over 100 dry holes in Alberta before hitting that reef at Leduc.

And jumping clear across the Rockies and south to southern Utah, there were reports that Americol Oil Co. of Los Angeles bled off some 90 bbls. of fluid, approximately 50 percent oil, from the unusual Cane Creek wildcat, located in the bottom of a rugged canyon. At a total depth of around 5452, the well is understood to be in the Mississippian. The operators must be confident. They have built roads to the rugged site, a pipeline out of the canyon and other facilities.

In Denver, C. L. Bainter of National Supply Co. was elected president of the Petroleum club. Other officers are H. T. Rapp, first vice president; David I. Sheppard, Lion Oil, second vice president, and Oscar S. Wood, re-elected secretary-treasurer. Honored as "Petroleum Club's Man of the year" for the past three years were Maury Goodin, H. Leslie Parker and G. F. McMillan.

MISSING

DANGEROUS!

Reported absent from home and office for several days, E. W. (Ed) Plauger was last seen wandering around oil fields in San Joaquin Valley. ★ Goes armed with box of Web Wilson "Tiger Tooth" Tong Dies and an order book. ★ Dangerous unless sale is made on every rig. Should be treated kindly and given an order. Don't notify officers. ★ (P.S. If you are low on tong dies and can't wait until he shows up, call Bakersfield 2-2376.)

Petroleum Administration

(Continued from Page 6)

in which we started when World War II commenced, I can note two important differences — one favorable and one unfavorable.

The favorable difference is that Defense Department officials seem thoroughly alert to our steel problem—which they were not before. We can count on their support in the scramble for materials. The unfavorable difference is this — we started into World War II with a comfortable backlog of excess capacity to produce crude oil. The failure during the war years to maintain an adequate drilling program did not make itself wholly felt in petroleum supply until the middle of 1945. This time we start on the basis of no such backlog. In fact we are already dependent on foreign crude oil supply to an extent equivalent to the entire prewar backlog that was available in late 1941. Failure to sustain an adequate drilling program would be felt almost immediately in this emergency. We in the Petroleum Administration have convinced the National Production Authority that we must drill 43,400 wells this year and that 1,890,000 tons of oil country tubular goods must be made available to do the job. The National Production Authority is providing a program for the mills to roll at that rate beginning in April 1951, and one of PAD's jobs is to work with NPA to make certain that those rollings continue in subsequent months. In cooperation with NPA we are developing detailed mechanisms for the equitable distribution of oil country tubular goods to operators commencing in July. We are also developing detailed mechanisms for emergency relief for operators lacking strings of pipe to complete wildcat wells in the period prior to the application of the over-all plan. We hope to be able to announce the full details on these plans within 30 days.

The petroleum and gas industries need steel for many other purposes —in fact, the tonnage required to keep the new supplies of crude oil and gas flowing to the surface from the underground reservoirs is only 1/6 of the industry's total direct needs for steel. However, on the principle of "putting first things first," PAD gave first attention to oil country tubular goods and the most critical items of steel equipment needed at the well head; plus, of course, the necessary materials needed for "M.R.O." (Maintenance, Repair and Operation) for the entire oil and gas industries. Now we must press forward with programs for refinery and pipe-line construction, and for other essential work.

we'll BUY wells To Abandon!

we will buy pipe lines either on the surface or under the ground, or any other materials used in the drilling or producing of oil wells.

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Anaheim Test Works

Drilling has reached 4200 ft. and is going on down in the Sunray Oil Corporation Foiles No. 1 test on Sec. 22-4s-10w in the Anaheim field, Orange County. Northeast of the Richfield area, Loumac Oil's Gibson-A.U.W. No. 1 wildcat is digging at 1905 ft. on Sec. 30-3s-8w.

National Announces New Drilling Rig

For shallow drilling, medium depth servicing and workover jobs, The National Supply Company announces the Ideal Type T-12 drilling rig. The new rig, designed for 120 input horsepower, will normally be considered for drilling in the 1500 to 3000 feet depth range and for servicing and workover jobs in the 3000 to 6000 feet range. The T-12 is extremely compact and readily adaptable to trailer or truck mounting.

One of the many design features is the engine-mounted hydraulic torque converter drive augmented by two draw works speed ratios to the drum and rotary table. This high and low speed selection, combined with torque converter characteristics provides an efficient utilization of available engine power for all drilling requirements. Fluid power transmission permits the fastest possible round-trip time with a given size of engine, eliminates "lugging down" and stalling the engine, and minimizes shock loads, thus lengthening the life of the draw works and engine.

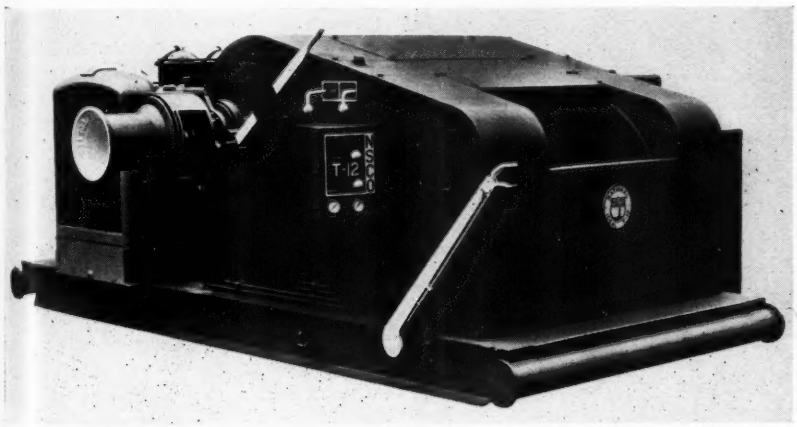
Air controls are provided for Fawick Airflex clutches on the main drum, sand reel drum and rotary drive, and for the engine throttle, inertia brake and breakout cathead.

The hoisting drum, 12¾ inches in diameter and 36 inches long, is a free spooling type mounted on roller bearings. One of its principal features is a new wire line clamp which locks the end of the line into a socket on the side of the drum flange, thus making removal of guards unnecessary. National's compound equalizing brakes are used on the drum.

Overall height of the skid-mounted rig is 51¼ inches. Width without catheads is within 8 feet. Skid is 14 feet long.

A free-running sand reel and mechanical reverse are available as optional equipment.

Complete specifications, performance curves, shaft speed ratios, pictures and dimensional drawings are available from The National Supply Company, Box 899A, Toledo, Ohio.



The National Supply Company's new Ideal Type T-12 drilling rig, designed for 120 input horsepower. It is normally considered for drilling in the 1500 to 3000 feet depth range and for servicing and workover jobs in the 3000 to 6000 feet range.

PB Hydraulic Protector Installation Unit

Using the hydraulic installation unit, the PB drill pipe protector may be installed on the transfer sleeve in a matter of seconds. Several transfer sleeves may be kept loaded with protectors and ready for immediate installation onto the drill pipe. These exclusive Patterson-Ballagh features speed the protector installation operation. The hydraulic installation unit is designed with a gasoline engine and pump as a power source. The PB unit is also available to utilize any other source of hydraulic pressure at the rig.

For further information, write for Patterson-Ballagh Installation Bulletin, P. O. Box 2493 Terminal Annex, Los Angeles 54, California, or 6247 Navigation Boulevard, Houston 11, Texas.

Appointed CMC Pump Distributors

Construction Machinery Co., Waterloo, Iowa, announces the appointment of Howard Supply Company as California distributors for this well known line of "Dual Prime" Industrial Pumps.

Stocks of Pumps in various sizes and capacities will be carried in Howard's thirteen distribution points in California. Supplemental Dealer stocks will also be maintained in other cities.

CMC Pumps are made in a complete range of sizes and volume, and are popular in many fields throughout the country, such as Oil Field, Refinery, General Constructing, Pipe Line, Road Building, Sewage Work, Marine Use, Irrigation, Mine Dewatering, etc.

Special pumps requiring special prime movers or special bases can be built up in Howard Service Shops in Los Angeles and Oakland, upon short notice.

K. L. Kellogg & Sons has completed Shell Oil's Taylor No. 323 in the Ventura Avenue field at 11,800 ft. for a flow of 595 barrels a day through a 16/64-in. bean.

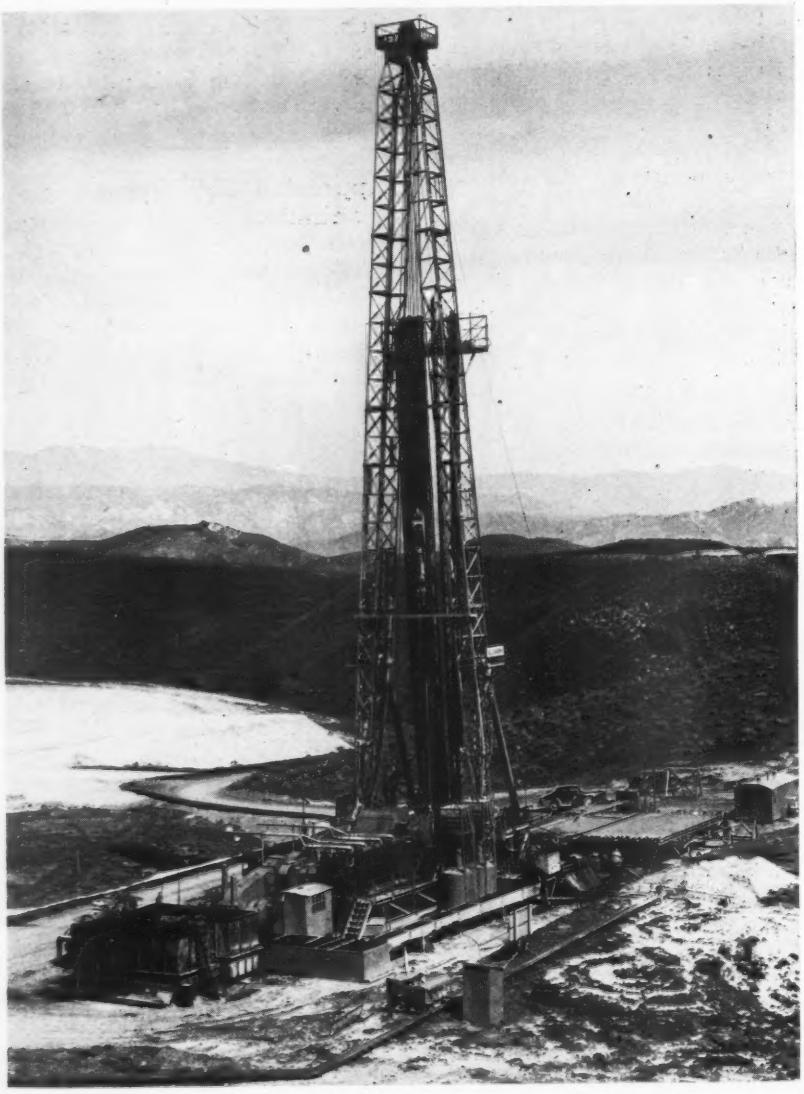
Bell & Burden Operates New Mast And Drawworks

Bell and Burden have just put in operation the first new Ideco Full View Mast to be operated in California. It is manufactured at Ideco's plant at Torrance, California. With this mast is a new U-30 Unit Rig driven by four LR1G-600 Cummins engines, and has 1-D500 and 1-B14 Emsco Pump.

The Ideco mast is of rigid "A" frame construction giving the driller a "full view" of his work from the floor to the crown block. To those operators familiar with conventional masts the Ideco mast is remarkable because of the wide open floor, clear pipe setback area, unobstructed visibility to the crown and many other features for safety and convenience.

The base is extendable and readily adaptable to any drawworks without cramping the catheads or other working areas. In this connection it is pointed out that the center line of the drum can be located as far from the table as on a conventional 136' x 26' derrick, thus allowing free use of power slips, and reducing operator fatigue when hoisting the blocks.

The means of raising the mast from the horizontal to the vertical position is by a novel device using two "raising legs," which push the mast up instead of pulling it, as with the normal gin pole method. This system not only provides the safety features of having two raising means, but also greatly reduces the sling loading. The slings are built into the mast and need not be rigged for every move.



The U-30 drawworks is built by the Unit Rig & Equipment Co. of Tulsa, and has not been seen in California before, although produced several years ago. It has many interesting features including unitized controls reduced to a minimum and mounted in the drawworks case, so as not to interfere with the driller's vision. The chains are pressure lubricated with filtered oil. The auxiliary brake is chain driven from the main drum, and is installed inside the drawworks case, so that there is no increase in dimension and it is not necessary to remove it when moving. There is a jaw clutch reverse manually shifted from the cathead position. All other controls are air operated, and clutches are airomatic triple disc. Manufacturer's rated horsepower is 1400.

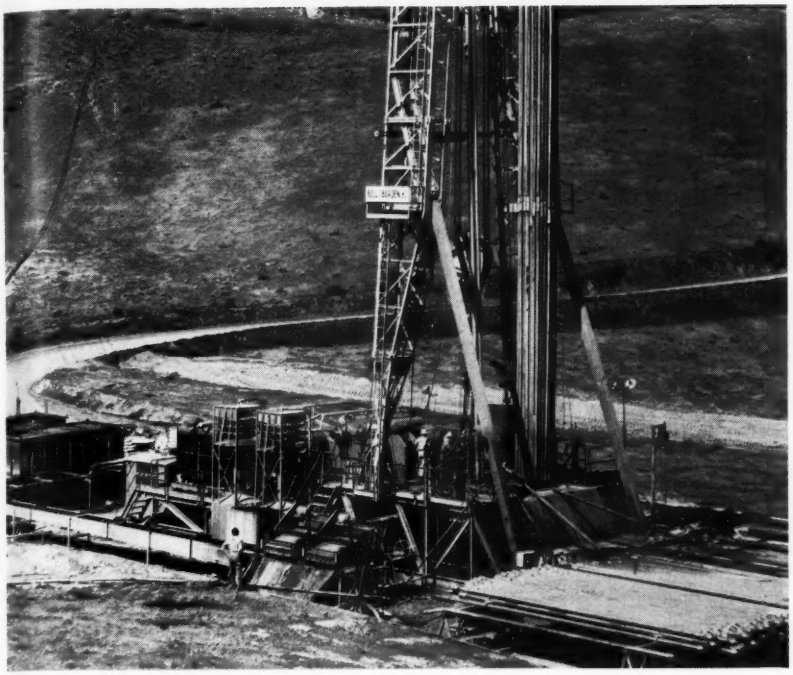
The four engines are a new Cummins product of medium speed using gas for fuel. They are compounded through the Mid-Continent Supply Company compound model 6240 with hydraulic couplings. The engines are paired by the compounding means yielding 600 horsepower per pair or 1200 horsepower total.

One Emsco D 500 7½ x 16 pump is driven from the compound tail end, and another smaller Emsco pump from #2 engine shaft.

The U-30 Unit Rig drawworks is rated for deepest well drilling, yet it is economical for drilling 10,000 feet or less. The drawworks and transmission are in one package, permitting portability, low rig-up and tear-down time, protection of all drives, rigidity of alignment. Air controls, mounted on a single panel, operate the transmission clutches, drum clutches, engine clutches, throttle, catheads, pump clutches and rotary clutches. All drives are lubricated by a dual-pump pressure system, using continually filtered oil.

The Hydromatic Brake is mounted inside the drawworks case and is automatically controlled and water regulated. Removal is not necessary for transportation of the drawworks.

Driving the U-30 Unit Rig &



Equipment Company drawworks is 4—Model LRIG-600 Cummins Gas Engines, which are convertible to Diesel by means of a conversion kit. The 4 Cummins Engines furnish a maximum of 1200 horsepower at 1100 RPM and drive the drawworks and 2 slush pumps through a Mid-Continent Supply Company Type 6240 rig drive. By use of this rig drive a maximum efficiency in power distribution to the drawworks, rotary table, and pump drives, can be accomplished.

When using the Mid-Continent 6240 Rig Drive, other than the rotary table drive chain and guard, it is not necessary to break a chain or dismantle guard portions when tearring down or rigging up. This machinery saving, time eliminating feature, is brought about by the "Swinging Final Drive" and swinging compounds used on this drive. Only 3 trucks loads are necessary when transporting the drawworks, and the 2 rig drive units, which include engines and pump drives. Besides the above the rig drive has many advantages due to its compactness and sturdy construction.

New Bulletin By National Supply

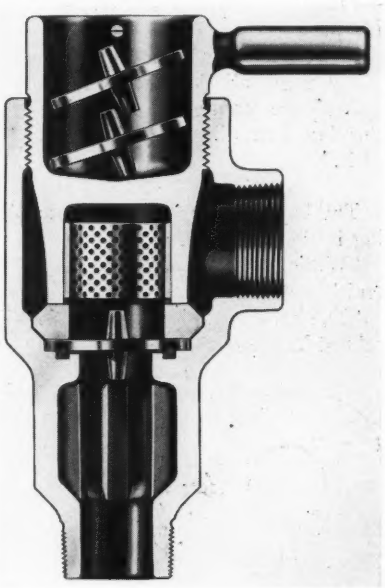
DRILLING RIG. The new Ideal Type 75-CA drilling rig, a 650-hp rig for medium depths, is described in Bulletin 372, announced by The National Supply Company, Box 899A, Toledo, Ohio. The bulletin contains 12 illustrated pages featuring construction and operation of the rig and includes specifications and diagrams showing shaft speeds and dimensions.

Grant Adds to Lines

Grant Oil Tool Company has recently added to its already considerable catalog of oil field equipment, a simple, well constructed, and altogether basically sound Safety Automatic Pressure Release valve.

The control of high pressures is essential in many petroleum operations if dangerous consequences are to be avoided, and this latest contribution is effective, easily installed, inexpensively maintained, and has wide application in all operational phases of the industry. There is really nothing revolutionary about the device. It merely incorporates in a sturdy, smoothly functioning unit, the best principles of equipment design and safety practice. The Grant Safety Automatic Pressure Release is manufactured in two models—the 2-inch Nominal, for use on well drilling rigs and pumping units of all types, and the Geophysical model for use on mud pumps such as are employed on shot hole and shallow core rigs. In their respective fields they are ideal for the protection of pumps, rotary hose, pipe, pipe fittings, and other machinery and equipment.

The releasing member in the new valves is a foolproof plastic disc that disintegrates as soon as the maximum desired pressure is exceeded, causing an immediate pressure drop. The disintegration takes place **inside the valve** so that there is no danger to workmen. New discs are easily and quickly inserted when required and it is impossible to put in more than one disc at a time.



The Nominal valve can be supplied with bushings for any protective pressure up to 5000 lbs. In the Geophysical model, however, the locking screw and bushings are integral parts of the assembly which is available for pressures up to 1000 lbs.

Castaic Creek Try Rigging Up

Heavier equipment is being rigged to the Humble Oil and British-American Oil Producing N. L. & F. No. C-1 on Sec. 1-4n-17w at Castaic Creek. The well at present is down 10,136 ft. It is less than a mile west of Texas Company's Honor Ranch field. At Castaic, Lesser Exploration Company's Mary Austin No. 1 wildcat on Sec. 28-6n-17w has been suspended at 3071 ft.

THIS LAUGH OFF!!

"Dad, do they raise political plums from seed?"

"No, my boy, political plums are more often the result of a bit of clever grafting."

A small boy came home from his first day at Sunday School and began emptying his pockets of money—nickels, dimes, quarters—while his parents gasped.

Finally his mother asked: "Where did you get all that money?"

And the youngster replied: "At Sunday School. They have bowls of it."

The boy's mother found him bawling in the basement.

"Willie, darling, what's the matter?"

"The hammer fell on daddy's foot," sobbed Willie.

"Why, honey, that's nothing to cry about."

"I didn't cry," whimpered Willie. "I laughed."

A new father received the glad tidings in a telegram: "Hazel gave birth to a six pound baby girl this morning; both doing well."

On the message was a sticker reading: "For a boy—call Western Union!"

"I'm worried. It is raining hard and my wife is downtown without an umbrella."

"Oh, she'll step into some store and shop until it's over."

"Yeah. That's what I'm worried about."

Always tell your wife the truth, advises someone—probably a manufacturer of dog houses.

No man would listen to you talk, if he didn't know it was his turn next.

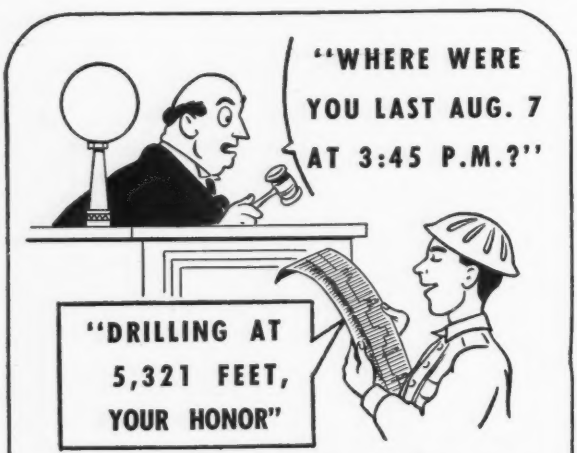
He tiptoed into the bedroom and noiselessly closed the door behind him. Stealthily he approached the moon-flooded bed.

The sleeping woman stirred. He paused to stare down at her. Her face was beautiful in repose. Her hair was like night upon the pillow. Her left arm cushioned her cheek. Her right was flung out across the coverlet. Her bosom rose and fell gently to her regular breathing. The fragrance of lilac lifted from her and filled the man's nostrils. Her eyelids fluttered. He stumbled.

"George?" she murmured.

"Huh!" he growled. "Move over!"

She was his wife.



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